Testimony in Support of the Women's Health & Safety Act (SB 398)
Representative Terese Berceau
February 27, 2008

Wisconsin is currently one of four states that continue to have a pre-*Roe v. Wade* abortion ban in its statutes. Along with Delaware, Alabama and Massachusetts, if the U.S. Supreme Court were to overturn *Roe v. Wade*, Wisconsin would automatically make abortion a crime. There would be no further legislative or judicial action needed and district attorneys could start prosecuting immediately. As if this prospect is not troubling enough, Wisconsin also has the distinction of being the only state in the country that's criminal abortion law contains penalties for women who obtain abortions, including for women who are the victim of rape, incest and whose health is endangered. Such archaic thinking is unacceptable in this day and age. It is time to repeal this dangerous and outdated law now.

I, along with Senator Mark Miller, introduced the Women's Health and Safety Act to remove this law from our books once and for all. In light of the greatly diminishing federal protections for women's health in the reproductive context, the only way to ensure that a woman is NEVER prosecuted in Wisconsin for obtaining an abortion is to remove 940.04 from our statutes. Can you imagine, women being brought to trial for obtaining an abortion necessary to protect her health? Or a woman on trial for seeking an abortion after a brutal assault? I'd like to share with you a story from a Wisconsin woman who wanted to be here today to support the women's health and safety act. Her name is Linda Gage and she currently lives in Eau Claire. When she was a young women, Linda was brutally raped. Here is her story:

> **When I was 18, I was raped. The perpetrator raped me, beat me and left me to die on the side of the road. I went to the police, and they didn't even take the person's name. I went to the hospital. They didn't do a complete medical exam. They just cleaned up my bruises and scrapes and sent me home.**
>
> **I am the mother of three daughters. I am speaking out today because it is too painful to think about one of my daughters, or any other woman, going through what I went through.**
>
> **It is even more unimaginable to think that a rape victim who chose to have an abortion after being brutally attacked could be thrown in jail under our current statute. These women are your mothers, your sisters, your daughters. Your friends. They are not, and should not, be treated as criminals. That is why I support the Women's Health and Safety Act.**

This bill is so very important because no woman should fear criminal prosecution for making a health care decision—but especially women like Linda, who may have suffered great traumas that result in a forced pregnancy. These women should be protected by our legal system, not treated like criminals.

Opponents of my bill, mainly Wisconsin Right to Life, tout the fact that after Roe v. Wade's reversal Wisconsin will be the first state in the country to outlaw abortion. As long as sec. 940.04 remains on the books, they are absolutely correct. But I have to ask you, is this a Wisconsin that we as a community want to see? The bottom line is that when abortion is illegal, women die. Abortion does not go away when the government bans it, rather it goes underground. In the U.S., while abortion rates are consistently dropping we continue to have some of the highest abortion rates in the developed world. Banning abortion will not diminish these numbers. All we have to do is look at the 69 countries world wide where abortion is prohibited. According to the World Health Organization, approximately 70,000 women world wide die from unsafe abortions every year, almost all of them in countries where abortion is illegal. Women in Wisconsin should never be forced to return to illegal, back-alley abortions.

I do want to acknowledge here that Wisconsin law regarding sending women to prison for obtaining an abortion is conflicted. We have the criminal abortion statute, sec. 940.04, that provides criminal penalties for women. We also have a law that was passed in 1985, sec. 940.13 that states no fine or imprisonment may be enforced against a woman for obtaining an abortion. Which law controls then? When Roe v. Wade is overturned, how will a district attorney decide which law to proceed under? The only answer to that question exists in the courts, they will ultimately decide. The only way to ensure that no court uses its discretion to lock women up is to repeal this law now.

The only way physicians will not be thrown in jail for performing abortions, including in instances of rape or incest, is to get rid of this statute. Locking up physicians who provide safe, legal abortions will leave women without any options even in the most tragic circumstances. We will once again see the return to back alley abortions and to women dying.

In fact, during this debate over the last two legislative sessions, no one has explained to me a valid reason why we should keep this outdated law on the books. Repealing the criminal abortion law will not affect any of our existing abortion restrictions. Abortion will still be illegal after viability. Women will still be forced to listen to state-directed counseling and wait an additional 24 hours after that counseling before obtaining an abortion. Young women will still be required to obtain parental consent. Poor women will still be unable to access abortion services through the Medicaid program. All of these restrictions will remain intact. The only thing that the Women's Health and Safety Act will accomplish is to remove the criminal penalties for women and doctors who obtain or provide abortion services prior to fetal viability. Repealing this law now is the only way to ensure that no woman or physician ever goes to prison in Wisconsin for making a health care decision. Period. That seems like a good enough reason to me.

Testimony of

Vincent M. Rue, Ph.D.

Before the

Senate Committee on Health,

Human Services, Insurance

and Job Creation

Concerning

Senate Bill 398

Madison, Wisconsin

February 27, 2008

I. Introduction

My name is Vincent M. Rue. I am the Co-Director of the Institute for Pregnancy Loss in Jacksonville, Florida. I have been a practicing psychotherapist for over 30 years specializing in the treatment of trauma and grief associated with induced abortion. I and my colleagues (Drs. Coleman, Reardon, Cougle, Coyle & Shuping) have conducted research and published our results in numerous peer-reviewed medical/psychological journals. I have taught at California State University and lectured widely throughout this country and abroad. I have also consulted with various governmental agencies including the U.S. Surgeon General and the Wisconsin Department of Health and Family Services. I testify today in opposition to SB 398.

It is ironic that prior to the legalization of abortion in 1973, in those states that liberalized their abortion policies, a woman had to justify mental health grounds in order to obtain an abortion. Now with over three decades of experience with legal abortion, the scientific evidence is increasingly clear that abortion places women's mental health at risk, even for those who have never had mental health problems previously.

II. Synopsis of Best Studies

An objective assessment of the psychological effects of induced abortion has been difficult due to underreporting (50-60%), and the stigma and shame attached to having this procedure. Thus, the data that have been available prior to 2002 likely underrepresent the true extent of the adverse emotional consequences of abortion since those most likely to not respond or drop out of studies are those that are more injured (Adler, 1976; Soderberg, Anderson, Janzon, & Sjoberg, 1997). Across the research literature, it is repeatedly reported that approximately 10-30% of women experience significant and lasting adverse post-abortion psychological reactions. The results of the four largest, record-based studies in the world consistently revealed that abortion is associated with increased risk for mental health problems. I was co-author on two of these studies and they are described in Appendix A of this written testimony.

- In the first two studies, we compared over 54,000 low income women who aborted or delivered a child while receiving medical assistance from the state of California in 1989 (Coleman et al, 2002). When we examined outpatient psychiatric claims, we found that within 90 days after pregnancy resolution, the abortion group had 63% more total claims than the birth group, with the percentage equaling 17% across the full 4-year study period. The abortion group had 40% more claims for depression compared to women who delivered. In the 2nd study (Reardon et al., 2003), using inpatient claims, we found overall, women who had an abortion had significantly higher relative risk of psychiatric admission compared with women who had delivered for every time period examined from 90 days post-abortion to four years. These

studies are significant, because in both, controls for prior psychological problems and the focus on low income women were instituted. (see Exhibit A, studies #1& 2)

- In a third study, David et al. (1981) found the overall rate of psychiatric admission was 50% higher for women who aborted compared to those who delivered.

- Finally, in a Canadian study of 80,000 women by Ostbye et al. (2001), health services utilization for psychiatric problems was 165% greater for the women with a history of abortion, compared to those without a history, within 3 months of the procedure.

A recent 25 year longitudinal study by Fergusson et al. (2006) (attached in full in Exhibit B) reported on the psychological outcomes of 1,265 children born in Christchurch NZ in 1977. This research has a number of positive methodological advantages over other studies: (a) it is prospective, following women over many years; (b) it used comprehensive mental health assessments employing standardized diagnostic criteria of DSM III-R disorders; (c) it reported considerably lower estimated abortion concealment rates compared to previously published studies; (d) the sample represented between 80 – 83% of the original cohort of 630 females; and (e) the study used extensive controls.

Fergusson's results have been widely reported throughout the world as an important study on this topic, even challenging the American Psychological Association's position statement. Fergusson et al. found: 42% of the women who aborted reported major depression by age 25, and 39% of post-abortive women suffered from anxiety disorders. In addition, 27% reported experiencing suicidal ideation, 6.8% indicated alcohol dependence, and 12.2% were abusing drugs. Compared to the pregnant/no abortion group, the abortion group scored significantly higher on all these variables except anxiety. Compared to the never pregnant group, the abortion group scored significantly higher on all variables. The findings of this study are consistent with other studies published recently documenting adverse mental health problems associated with elective abortion.

III. Additional Research Evidence

Among the most commonly reported negative psychological effects in the literature are anxiety and depression. Bradshaw and Slade (2003) in an extensive review of the literature "The proportion of women with high levels of anxiety in the month following abortion ranged from 19-27%, with 3-9% reporting high levels of depression. The better quality studies suggested that 8-32% of women were experiencing high levels of distress" (p. 941).

Many women who have aborted experience symptoms of depression including sad moods, sudden and uncontrollable crying episodes, low self-esteem, sleep, appetite, and sexual disturbances.

Guilt associated with abortion has been consistently reported (Broen et al., 2004) and identified in the pre-abortion counseling literature (Baker et al., 1999). I and my colleagues (2004) study revealed that 78% of U.S. women felt guilt in association with a past abortion. (See Exhibit A, #10)

Kero et al. (2001) found that 46% of women who aborted indicated that their thoughts regarding termination evoked a conflict of conscience. The source of such conflict is likely women's understandings of the humanity of the fetus. In Conklin and O'Connor's (1995) study of 800 women who had an induced abortion, those who reported perceiving the fetus as human experienced significantly more post-abortion negative affect and decision dissatisfaction than women who did not. Awareness of the humanity of the fetus is common among women who are seriously contemplating an induced abortion. For example, using semi-structured interviews Smetana and Adler (1979) found that only 25% of women confronting an induced abortion decision understood that the fetus was a human being and understood induced abortion as terminating his or her life. In a recent study conducted by Rue et al. (2004), 50.7 % of American women felt induced abortion was morally wrong. Because of value conflict, ambivalence and guilt are commonly experienced in abortion decision making. Pre-abortion ambivalence is a strong predictor for postabortion mental health decline.

Because abortion is an intentionally caused human death experience, it has been identified in the American Psychiatric Association's Diagnostic & Statistical Manual of Mental Disorders (DSM-III-R) as a type of psychosocial stressor capable of causing posttraumatic stress disorder (PTSD), among other mental disorders (p. 20). In the current version of the DSM, trauma is thus defined:

- "the person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others"

- "the person's response involved intense fear, helplessness, or horror" (DSM IV-R, p. 428)

Negative psychological mechanisms to cope with trauma include symptoms of unwanted reexperiencing, symptoms of persistent avoidance and numbing of general responsiveness, as well as persistent symptoms of increased arousal not present before the trauma. These are the hallmark symptoms of PTSD.

Overall, in our trauma-sensitive cross-cultural study we found that American women were more negatively influenced by their abortion experiences than Russian women. While 65% of American women and 13.1% of Russian women experienced multiple

symptoms of increased arousal, re-experiencing and avoidance associated with posttraumatic stress disorder (PTSD), 14.3% of American and 0.9% of Russian women met the full diagnostic criteria for PTSD. (see Exhibit A, #10)

A more recent study by Sulliman et al. (2007) found that 20% of the women who aborted in their sample experienced PTSD 3 months post-procedure. They also found a 61% increase in the number of women experiencing PTSD from one month to three months post-procedure. Additionally, they reported 20% of their sample remained depressed 3 months following the abortion.

Broen, Moum, Bodtker and Ekeberg (2004) found that nearly 17% of 80 women who had an abortion two years earlier scored highly on a scale measuring avoidance symptoms, compared with about 3% of those who miscarried. This was in contrast to responses 10 days after the pregnancy ended, when nearly half of those who miscarried and 30% of those who had an abortion scored high on measures of avoidance or intrusion, which includes symptoms such as flashbacks and nightmares.

The decision to abort is obviously often conflict-ridden with many women seriously questioning their decision and suffering from their choice to abort. Coleman and Nelson (1998) noted that 38.7% of female college students voiced regret in the first few years following an abortion. Moreover, the results of a study by Soderberg and colleagues (1998) indicated that 76.1% of women who had a past abortion would never consider repeating the experience.

IV. Significant Health Risks Associated with Abortion

The risk of death due to suicide is significantly higher among women who abort when compared to those who deliver. Using the Medi-Cal data mentioned a few minutes ago, we found that those who aborted had a 62% higher, age-adjusted risk of death from all causes and a 154% greater risk for death from suicide. The higher death rates associated with abortion persisted over time and may be explained by self-destructive tendencies, depression, and other unhealthy behavior aggravated by the abortion experience. Abortion is a consistent and strong risk factor for suicidal behavior with these findings replicated in other record-linkage studies.

Many studies also support a link between abortion and substance use. Using data from a nationally representative sample, my colleagues and I found that pregnant women with a prior history of abortion, compared to women without a history, were 10 times more likely to use marijuana, 5 times more likely to use various illicit drugs, and were twice as likely to use alcohol. In another paper using a national data set, we found that women who aborted, compared to those who carried an unintended pregnancy to term, were twice as likely to use marijuana and reported more frequent alcohol consumption. (See Exhibit A, #s 4, 7 & 8)

Studies have further shown that abortion is related to an increased likelihood of sexual dysfunction, partner communication problems, and separation or divorce. For example, in a recently published study, we found that 24% of American women sampled reported sexual problems that they directly attributed to a prior abortion. (See Exhibit A, #10 & 15)

Finally, research suggests that emotional difficulties and unresolved grief responses associated with perinatal loss may hinder effective parenting by reducing parental responsiveness to child needs, by interfering with attachment processes, and /or by instilling anger, which is a common component of grief. Two of the studies provided in Exhibit A have linked abortion with compromised parenting. (studies #6 & 14)

V. Benefits of Recent Research since 2002

There are a number of methodological problems associated with previous post-abortion research that my colleagues and I have tried to address in studies published since 2002 (see Exhibit A). Some of the methodological limitations have been:

1) Both recruitment and retention of research subjects in longitudinal investigations have been hurt by the sensitive nature of the topic.

- Initial consent rates are often as low as 50-60%, with drop out rates as high as 60%

- In our studies using Medi-Cal claims, consent and attrition problems were avoided completely.

2) Many studies have been conducted with small samples confined to one geographical locale, restricting the generalizability of findings.

- All our studies used large samples, most in the thousands and several used nationally representative, ethnically diverse samples.

3) Another problem is concealment – approximately 50% of women who have had a previous abortion will deny it.

- Our Medi-Cal studies avoided this problem since medical claims were used.

4) Use of brief, non-standardized measures of psychological health also compromises the integrity of research in this area.

- In the Medi-Cal studies we used medical claims with diagnostic codes assigned by trained professionals.

5) Few relative risk studies have been conducted using appropriate control groups – comparing women who abort to those who carry to term.

- In most of our studies we used women who delivered as a comparison group and in 3 of them *(#s 8, 9, &12 on the handout)* we used women who delivered an unintended pregnancy as the control group.

6) Further, very few studies have utilized controls for pre-existing psychological problems.

- In many of our studies we were able to control for prior psychological problems or state.

7) There have been too few longitudinal Investigations.

- 10 out of 12 of our studies utilized a prospective data collection strategy with repeated assessments over time.

8) Due to multiple intervening factors, it has been difficult to determine the direction of harm.

- most of our studies instituted controls for multiple associated factors

- one of our studies uniquely assessed the degree of injury women attributed to their abortion experience (#10)

VI. Main Findings from Our Studies

The central results from our work are as follows:

First, based on the methodological improvements characterizing the newer studies, prior work indicating that abortion is an emotionally benign medical procedure for most women should no longer be accepted.

Second, in all the analyses conducted, women with a history of abortion were never found to be at a lower risk for mental health problems than their peers with no abortion experience.

Third, the published studies indicate that women with a history of induced abortion are at a significantly higher risk for the following:

- Inpatient and outpatient psychiatric claims, particularly:
  - adjustment disorders
  - bipolar disorder

- depressive psychosis
- neurotic depression, and schizophrenia

- Substance use generally and specifically during a subsequent pregnancy.

- Clinically significant levels of depression, anxiety and PTSD

- Relationship and parenting difficulties

- Death by suicide

Fourth, when compared to *unintended pregnancy carried to term,* abortion poses more significant mental health risks.

VII. Rape and Incest Exclusion

Wisconsin's pre-Roe abortion law made no exception for cases involving rape and incest. Rape and incest are highly emotional and inflammatory arguments that have historically contributed towards the liberalization of our abortion laws in this country. When rape and incest are removed from the justifications for abortion, a new perspective is necessary. Such a perspective requires reconsideration of a number of factors.

Rape is a serious and tragic crime against the person. It is often common for even well-meaning, educated and sympathetic individuals to stereotype and categorize the reactions and responses of the rape victim. Often non-victims project themselves into the situation and assume that a sexual assault victim's reaction or a pregnant rape victim's responses will be similar to those they imagine for themselves. These unfortunate stereotypes are not sensitive to the victim and are not helpful.

Consider the following:

- There are approximately 200,000 rapes in the U.S. (reported and unreported) each year and only 2 per 1000 result in pregnancy. This translates out to approximately 400 rape-induced pregnancies in the entire U.S. annually.

- The assumption that pregnant rape victims would naturally want abortions is widespread, but it is not based on the available data.

In one of few studies of pregnant rape victims ever conducted, Mahkorn (1979) found that 85% actually chose *against* abortion.

- There are a number of reasons why women who become pregnant through rape decide not to abort.
    - Many believe it is immoral.
    - Others feel an abortion would be another act of violence against their bodies and their unborn child.
    - Some believe that aborting the unborn child places ultimate control by the perpetrator over the woman and her pregnancy and results in only more re-victimization
    - Still others contend that God or fate would use the child for a greater purpose despite the fact that the child was brought into the world by a horrible act.

- In a second study of 192 women (Reardon et al., 2000), who became pregnant as a result of rape or incest, 88% of women felt abortion was the wrong choice. Forty three percent reported having abortions because of pressure from others and more than 90% said they would discourage other victims of sexual assault from undergoing abortion. Many women reported feeling re-victimized by an abortion.

Pregnant incest victims will often undergo abortions without the abortion provider knowing about the victimization. Most young incest victims are too frightened to reveal their victimization or may believe such sexual contact is a "normal" component of family relationships. Pregnancy may be the sentinel event that leads to a discovery of an incestuous relationship.

The young victim's pregnancy represents a threatening situation for the perpetrator. Unfortunately abortion will frequently be used by the perpetrator or other caretakers to cover up the facts of the victimization. Frequently young incest victims will be coerced into having abortions by those who victimize them or by other caretakers who are dependent on the victimizer. Young victims will often be told to lie about the circumstances of their pregnancy. They may be told that if they reveal their victimization, they will be responsible for breaking up their family, or causing a father, step-father, or other relative to go to jail.

Abortion for a pregnant incest victim solves nothing, and returns her to a life of chronic depression, anxiety and re-traumatization.

After any abortion, feelings of guilt, anxiety, depression, and lowered self-esteem are relatively common and may then accentuate the traumatic feelings associated with sexual assault or incest. After all, if one trauma follows from another, it is entirely reasonable to assume that the former cannot remediate the latter. Clinical research evidence is clear that this does not occur.

VIII. Conclusion

The findings reported today indicate that it is false and misleading to suggest to women that abortion has no significant mental health risks, much less is "psychologically safer" than carrying to term.

Women facing an unwanted pregnancy often feel desperate and alone, fearing loss of their personal autonomy, destruction of their plans for the future, loss of others' esteem, and altered relationships in addition to viewing a baby as an enormous responsibility that they are ill-prepared to assume. In such circumstances, women need real and considerable support, not the simple "solution" that an abortion promises.

Because women are urged to make their decision quickly, many may fail to realize how their decision to abort may significantly compromise the quality of their lives for many years beyond the decision. The many life enhancing aspects of having a child are certainly not discussed or encouraged at abortion clinics. Hence, if women are offered either no information as identified herein or misinformation based upon ideology and profit-based motives, their mental health can be placed in harm's way.

The psychological health risks for women who abort are greater than for those who carry to term an unwanted pregnancy. If you cast your vote in opposition to SB 398, you are voting in conjunction with sound scientific knowledge and preventing women's mental and physical health from needlessly being placed at risk.

I urge you to vote against SB 398. Thank you.

References

Adler, N. E. (1976). Sample attrition in studies of psychological sequelae of abortion: How great a problem? *Journal of Applied Social Psychology, 6,* 240-259.

Bradshaw, Z., & Slade P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. *Clinical Psychology Review, 23,* 929-958.

Broen, A. et al. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. *Psychosomatic Medicine, 66*: 265-271.

Congleton, G. & Calhoun, L. (1993). Post-abortion perceptions: A comparison of self-identified distressed and non-distressed populations. *International Journal of Social Psychiatry, 39,* 255-265.

Conklin, M. & O'Connor, B. (1995). Beliefs about the fetus as a moderator of postabortion psychological well-being. *Journal of Social Psychiatry, 39,* 76-81.

David, H., Rasmussen, N., & Holst, E. (1981). Post-abortion and postpartum psychotic reactions. *Family Planning Perspectives, 13,* 88-91.

Kero, A., Hoegberg, U., Jacobsson, L., & Lalos, A. (2001). Legal abortion: A painful necessity. *Social Science and Medicine, 53,* 1481-1490.

Ostbye, T., Wenghofer, E. F., Woodward, C. A., Gold, G., & Craighead, J. (2001). Health services utilization after induced abortions in Ontario: A comparison between community clinics and hospitals. *American Journal of Medical Quality, 16,* 99-106.

Mahkorn, S. (1979). Pregnancy and Sexual Assault, *The Psychological Aspects of Abortion*, eds. Mall & Watts, (Washington, D.C., University Publications of America).

Reardon, D. C., Makimaa, J. & Sobie, (2000). A *Victims and Victors: Speaking Out About their Pregnancies, Abortions and Children Conceived in Sexual Assault.* Springfield, IL: Acorn Books.

Smetana, J., & Adler, N. (1979). Understanding the abortion decision: A test of Fishbein's Expectancy Value Model. *Journal of Population, Behavioral, Social, and Environmental Issues, 24,* 338-357.

Soderberg, H., Andersson, C., Janzon, L., & Slosberg, N-O. (1997). Continued pregnancy among abortion applicants. A study of women having a change of mind. *Act Obstetricia Gynecologica Scandinavia, 76,* 942-947.

Sulliman, S. et al. (2007). Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anesthesia versus intravenous sedation. *BMC Psychiatry, 7:* 1-9.

Exhibit A:

Psychological Studies on the Aftermath of Abortion from 2002

Prepared by

Priscilla K. Coleman, Ph.D.

Psychology of Abortion Studies Published Since 2002

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
1) Coleman, P. K., Reardon, D. C., Rue, V., & Cougle, J. (2002). **State-funded abortions vs. deliveries: A comparison of outpatient mental health claims over four years.** *American Journal of Orthopsychiatry, 72,* 141-152.	Women who aborted (n=14,297) or delivered a child (n=40,122) while receiving medical assistance from the state of California (Medi-Cal) in 1989 and who had no psychiatric claims for 1 yr prior to pregnancy resolution. Delivery group had no subsequent abortions.	**California Department of Health Services Medi-Cal data** All low–income Delivery: Avg. age: 25.4 Avg. number of mos. of eligibility: 27 Abortion: Avg. age: 24.6 Avg. number of mos. of eligibility: 31	Out-patient mental health claims – total number and numbers for specific diagnoses	- Pre-pregnancy psych-ological difficulties - Age - Months of eligibility	- Used actual claims data, eliminating the concealment problem - Avoids recruitment and retention problems - Eliminated cases with previous psychological claims - With claims data, avoids simplistic forms of assessment - Comparison groups are likely very similar except for the abortion experience - Extended time frame, with repeated measurements enabling more confidence in the causal question	Within 90 days after pregnancy resolution, the abortion group had 63% more total claims than the birth group, with the percentages equaling 42%, 30%, 16%, and 17% for the 1st 180 days, yr 1, yr 2 and across the full 4-yr study period respectively. Across the 4-yrs, the abortion group had 21% more claims for adjustment reactions than the birth group, with the percentages equaling 95%, 40%, and 97% for bipolar disorder, neurotic depression, and schizophrenia respectively.
2) Reardon, D. C., Cougle, J., Rue, V. M., Shuping, M., Coleman, P. K., & Ney, P. G. (2003). **Psychiatric admissions of low-income women following abortion and childbirth.** *Canadian Medical Association Journal,* 168, 1253-1256.	Women who aborted (n=15,299) or delivered a child (n=41,442) while receiving medical assistance from the state of California (Medi-Cal) in 1989 and who had no psychiatric claims for 1 yr prior to pregnancy resolution. Delivery group had no subsequent abortions.	**California Department of Health Services Medi-Cal data** All low–income Delivery: Avg. age: 25.5 Avg. # of mos. of eligibility: 27 Abortion: Avg. age: 24.8 Avg. # of mos. of eligibility: 31	In-patient mental health claims – total number and numbers for specific diagnoses	- Pre-pregnancy psych-ological difficulties - Age - Months of eligibility	- Used actual claims data, eliminating the concealment problem - Avoids recruitment and retention problems - Eliminated cases with previous psychological claims - With claims data, avoids simplistic forms of assessment - Comparison groups are likely very similar except for the abortion experience - Extended time frame, with repeated measurements enabling more confidence in the causal question	Within 90 days after pregnancy resolution, the abortion group had 160% more total claims than the birth group, with the percentages equaling 120%, 90%, 111%, 60%, 50%, and 70% for the 1st 180 days, yr 1, yr 2, yr 3, yr 4, and across the full 4-yr study period respectively. Across the 4-yrs, the abortion group had 110% more claims for adjustment reactions than the birth group, with the percentages equaling 90%, 110%, and 200% for depressive psychosis, single and recurrent episode, and bipolar disorder respectively.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
3) Reardon, D. C., Cougle, J., Ney, P. G., Scheuren, F., Coleman, P. K., & Strahan, T. W. (2002). **Deaths associated with delivery and abortion among California Medicaid patients: A record linkage study.** *Southern Medical Journal, 95*, 834-841.	Women who aborted or delivered while receiving medical assistance from the state of California (Medi-Cal) in 1989 and died between 1989 and 1997 (n=1,713)	**California Medi-Cal records and death certificates** All low–income Delivery: Avg. age: 25.6 Abortion: Avg. age: 24.8	Death due to various violent and natural causes	- Pre-pregnancy psych-ological difficulties - Age	- Used actual claims data, eliminating the concealment problem - Eliminated cases with previous psychological claims - Avoids recruitment and retention problems - Comparison groups are likely very similar except for the abortion experience - Covered 8 yrs post-pregnancy	- With adjustments for age, women who aborted when compared to women who delivered were 62% more likely to die from any cause. More specific percentages are given below. Violent causes: 81% Suicide: 154% Accidents: 82% All natural causes: 44% AIDS: 118% Circulatory disease: 187%, Cerebrovacular disease: 446% Other heart diseases; 159% - Fairly similar results were obtained when we controlled for prior psychiatric history as well.
4) Coleman, P. K., Reardon, D. C., Rue, V., & Cougle, J. (2002). **History of induced abortion in relation to substance use during subsequent pregnancies carried to term.** *American Journal of Obstetrics and Gynecology, 187*, 1673-1678.	Women who carried a pregnancy to term with a history of one prior abortion (n=74) were compared to women with one prior birth (n=531) and no prior pregnancies (n=738)	**National Pregnancy and Health Survey** Avg. age: 26.5 yrs Marital status Married: 71.5% Not married: 29.5% Ethnicity Hispanic: 18.4% Black: 11.4% White: 64.3% An avg. of 5 yrs had elapsed since a prior abortion and an avg. of 3.42 yrs since a prior birth.	Substance use of various forms during pregnancy	Results were stratified by potentially confounding factors (marital status, income, ethnicity, and time elapsed since a prior abortion or birth)	- Nationally representative, racially diverse sample - Measured substance use at a time when abortion-related stress is likely to be exacerbated	- Compared with women who had previously given birth, women who aborted were significantly more likely to use marijuana (929%), various elicit drugs (460%), and alcohol (122%) during their next pregnancy. Results with only first-time mothers were similar. - Differences between the abortion group and the prior birth and no prior pregnancy groups relative to marijuana and use of any elicit drug were more pronounced among married and higher income women and when more time had elapsed since the prior pregnancy. - Differences relative to alcohol use were most pronounced among the white women and when more time had elapsed since the prior pregnancy.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
5) Cougle, J., Reardon, D. C., & Coleman, P. K. (2003). **Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort.** *Medical Science Monitor, 9,* CR105-112.	First pregnancy event of either an abortion (n=293) or delivery (n=1,591) between 1980 and 1992	**National Longitudinal Survey of Youth** Abortion: Avg. age: 30 Ethnicity: Hispanic: 23% Black: 24% White: 57% Avg. income in 1992: $33,554 Delivery: Avg. age: 30 Ethnicity: Hispanic: 21% Black: 24% White: 55% Avg. income in 1992: $33,969 Avg. of 8 yrs had elapsed since the 1st pregnancy event	- Symptoms of clinical depression	- Prior psych-ological state, age, race, marital status, divorce history, education, and income (stratific-ation by ethnicity, current marital status, and history of divorce)	- Nationally representative, racially - diverse sample - Controlled for prior psychological state and several other variables - Extended time frame	- Women whose 1st pregnancies ended in abortion were 65% more likely to score in the "high-risk" range for clinical depression. - Differences between the abortion and birth groups were greatest among the demographic groups least likely to conceal an abortion (White: 79% higher risk; married: 116% higher risk; 1st marriage didn't end in divorce: 119% higher risk).
6) Coleman, P. K., Reardon, D. C., & Cougle, J. (2002). **The quality of the caregiving environment and child developmental outcomes associated with maternal history of abortion using the NLSY data.** *Journal of Child Psychology and Psychiatry and Allied Disciplines, 43,* 743-758.	Mothers with (n=672) and without a history abortion (n=4,172) prior to childbirth, with children between the ages of 1 and 13 yrs	**National Longitudinal Survey of Youth** Post-abortive: Avg. age: 31 Ethnicity: Hispanic: 25% Black: 31% White: 44% Avg. income in 1992: $30,162 Non post-abortive: Avg. age: 31 Ethnicity: Hispanic: 22% Black: 30% White: 48% Avg. income in 1992: $30,325	- Emotional and Cognitive support in the home - Math, reading, and vocabulary tests - Problems behaviors	- Ethnicity - Marital history - Number of children - Child age and gender - Maternal age, depression, and education - Family income	- One of very few studies to consider the effects of maternal history of abortion on children's behavior and development -Large, nationally representative, racially diverse sample -Extended time frame - Controls for several potentially confounding variables	- Lower emotional support in the home among 1st born 1- to 4-year-olds of mothers with a history of abortion. - When there was a history of abortion, children (2nd & 3rd born. 1 to 4-yr-olds) of divorced mothers experienced lower levels of emotional support than children of non-divorced women. Decreased emotional support was not observed among children of divorced women with no history of abortion. - More behavior problems among 5 to 9-yr-olds of mothers with a history of abortion.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
7) Coleman, P. K., Reardon, D. C., & Cougle, J. (2005) **Substance use among pregnant women in the context of previous reproductive loss and desire for current pregnancy.** *British Journal of Health Psychology, 10, 255-268.*	Women with a history of abortion (n=280), miscarriage (n=182), and stillbirth (n=30) were compared to women without the respective forms of loss: no miscarriage, n= 221; no abortion, n=144: no stillbirth, n= 371 Comparisons were also made based on pregnancy wantedness	**Washington DC Metropolitan Area Drug Use and Pregnancy Study** Full-sample demographics (1992): Married: 32% Age: 18 or under: 9.3% 19-25: 37.4% 26-34: 40.3% 35 or older: 7.8% Income: Under $10,600: 35% $10,600 - $19,000:16% $19,100 - $30,000:12% $30,100 - $50,000:12% Over $50,000:14% Ethnicity: Black: 79.3%, White: 12.4%, Other:4%	Use of alcohol, illicit drugs, and cigarettes during pregnancy	- Other forms of loss - Age - Marital status - Trimester in which prenatal care was sought -Education -Number in household	- Mostly Black sample (few if any post-abortion studies have focused on this group) - Enabled comparison of various forms of perinatal loss	- No differences were observed in the risk of using any of the substances measured during pregnancy relative to a prior history of miscarriage or stillbirth. - A prior history of abortion was associated with a significantly higher risk of using marijuana (201%), cocaine-crack (198%), cocaine-other than crack (406%), any illicit drugs (180%), and cigarettes (100%). - No differences were observed in the risk of using various substances relative to pregnancy wantedness, with the exception of the risk of cigarette use being higher when pregnancy was not wanted (90%).
8) Reardon, D. C., Coleman, P. K., & Cougle, J. (2004) **Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study.** *Am. Journal of Drug and Alcohol Abuse, 26, 369-383.*	Women with prior histories of delivering an unintended pregnancy (n=535), abortion (n=213), or no pregnancies (n-1144)	**National Longitudinal Survey of Youth** Demographics measured in 1988 Delivery: Married: 66.5%, Avg. age: 26, Avg. income: $22,949 Abortion: Married: 43.7%, Avg. age: 26, Avg. income: $27,076 No pregnancies: Married: 35.4%, Avg. age: 26.3, Avg. income: $29,667. An avg. of 4 yrs since the target pregnancy	Use of marijuana, cocaine, and alcohol	- Age - Ethnicity - Marital status - Income - Education - Pre-pregnancy self-esteem and locus of control	- Nationally representative, racially - diverse sample - Controlled for prior psychological state and other variables - Extended time frame - All women were experiencing an unintended pregnancy	- Compared to women who carried an unintended first pregnancy to term, those who aborted were 100% more likely to report use of marijuana in the past 30 days and 149% more likely to use cocaine in the past 30 days (only approached significance). Women with a history of abortion also engaged in more frequent drinking than those who carried an unintended pregnancy to term. - Except for less frequent drinking, the unintended delivery group was not significantly different from the no pregnancy group

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
9) Cougle, J., Reardon, D. C., Coleman, P. K., & Rue, V. M. (2005).**Generalized anxiety associated with unintended pregnancy: A cohort study of the 1995 National Survey of Family Growth.** *Journal of Anxiety Disorders, 19, 137-142.*	First pregnancy event of either an abortion (n=1,033) or delivery (n=1,813). All were unintended pregnancies	**1995 National Survey of Family Growth** Abortion: Ethnicity: Hispanic: 10%, Black: 26%, White: 61% Avg. income:376% of poverty level Delivery: Ethnicity: Hispanic: 14%, Black: 36%, White: 47% Avg. income: 234% of poverty level Avg. age, both groups: 32. Avg. of 13 yrs since the 1st pregnancy event	Symptoms of Generalized Anxiety Disorder – lasting for a period of at least 6 months.	- pre-existing anxiety, age, and race (stratification by ethnicity, current marital status, and age)	- Nationally representative, racially - diverse sample - Controlled for prior anxiety - Extended time frame - All women were experiencing an unintended pregnancy	- The odds of experiencing subsequent Generalized Anxiety was 34% higher among women who aborted compared to women who delivered. - Differences between the abortion and birth groups were greatest among the following demographic groups: Hispanic 86% higher risk; unmarried at time of pregnancy: 42% higher risk; under age 20: 46% higher risk.
10) Rue, V. M., Coleman, P. K., Rue, J. J., & Reardon, D. C. (2004). **Induced abortion and traumatic stress: A preliminary comparison of American and Russian women.** *Medical Science Monitor* 10, SR 5-16.	Russian (n=331) and U.S. (n=217) women who had experienced one or more abortions and no other forms of loss	Data collected in health care facilities (hospitals, clinics, and physician's offices) by Vincent Rue and colleagues Russian: Avg. age: 28, 59% married, 63% employed full-time U.S.: Avg. age: 34, 49% married, 34% worked full-time An avg. of 5.8 yrs had elapsed since the Russian women's abortions, and 10.6 yrs had elapsed since the U.S. women's abortions	Symptoms of Post Traumatic Stress Disorder	- Severe stress symptoms prior to the abortion - Other stressors pre- and post-abortion - Several demographic variables - Psycho-social variables (harsh discipline, sexual, physical, and emotional abuse, parental divorce, etc.)	- Extensive controls for background variables - One of few cross-cultural comparisons in the literature	- U.S. women reported more stress, PTSD symptoms, and other negative effects than Russian women. - Russian women scored higher on the Pearlman Traumatic Stress Institute Belief Scale, indicating more pronounced disruption of basic needs impacted by trauma (safety, trust, self-esteem, intimacy, and self-control). - No differences relative to perceptions of positive effects (improved partner relationships, feeling better about oneself, relief, feelings of control). - The percentages of Russian and U.S. women who experienced 2 or more symptoms of arousal, 1 or more symptom of re-experiencing the trauma, and 1 or more experience of avoidance (DSM-IV diagnostic criteria) were equal to 13.1% and 65% respectively.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
11) Coleman P, Maxey CD, Rue VM, Coyle CT (2005). **Associations between Voluntary and Involuntary Forms of Perinatal Loss and Child Maltreatment among Low-Income Mothers.** *Acta Paediatrica,94.*	The 518 participants included 118 abusive mothers, 119 neglecting mothers, and 281 mothers with no history of child maltreatment Reproductive loss information: 100 women had a history of one abortion and 99 had a history of one miscarriage/ stillbirth	**Fertility and Contraception Among Low-Income Child Abusing and Neglecting Mothers in Baltimore MD Study** Marital status: Single (78.8%); Separated (18.9%); Married (2.3%). Avg. age: 27. Avg. # of children: 2.64 Ethnicity: Black (79.9%); White (19.7%); Other (4%) Education: >or= 11 years (59%); High school diploma (32%); 13-16 years (9%)	- Child physical abuse - Child neglect	Demographic, personal history, and social variables found to be positively correlated with the forms of child maltreatment examined. - The form of loss not being analyzed	- Use of confirmed cases of child maltreatment - An extended time frame - Diverse sample - Controls for several potentially confounding variables	- Compared to women with no history of perinatal loss, those with 1 loss (voluntary or involuntary) had a 99% higher risk for child physical abuse. - Compared to women with no history of induced abortion, those with 1 prior abortion had a 144% higher risk for child physical abuse. - A history of 1 miscarriage/stillbirth was not associated with increased risk of child abuse. - Perinatal loss was not related to neglect.
12) Coleman, P. K. (2006). **Resolution of Unwanted Pregnancy During Adolescence Through Abortion versus Childbirth: Individual and Family Predictors and Consequences.** *Journal of Youth and Adolescence.*	Adolescents in grades 7-11 who experienced an unwanted pregnancy That was resolved through abortion (n=65) or delivery (n=65)	**National Longitudinal Study of Adolescent Health** Abortion group: 15 to 19 years of age (76.4%); under 15 (23.6%) Parents' marital status: married (51.8%); not married (48.2%) Parental income: under $40,000 (52.8%); $40,000 or more (47.2%) Birth group: 15 to 19 years of age (80.4%); Under 15 (19.6%) Parents' marital status: married (43.6%); not married (56.4%) Parental income: under $40,000 (63.6%); $40,000 or more (36.4%)	- Counseling for emotional problems - Trouble sleeping cigarette smoking - Marijuana use - Alcohol use -Problems with parents because of alcohol use - School problems because of alcohol use	- Demographic, educational, psychological, and family variables found to predict the choice to abort	- Nationally representative, diverse sample -Exclusive focus on unwanted pregnancies - Implemented controls for several potentially confounding variables - Use of two waves of data - longitudinal	- After implementing controls, adolescents with an abortion history, when compared to adolescents who had give birth, were 5 times more likely to seek counseling for psychological or emotional problems, 4 times more likely to report frequent sleep problems, and they were 6 times more likely to use marijuana.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
13) Reardon, D.C., & Coleman, P. K. (2006). **Relative Treatment Rates for Sleep Disorders Following Abortion and Childbirth: A Prospective Record-Based Study.** *Sleep, 29,* 105-106.	15,345 women who had an induced abortion and 41,479 women who delivered and had no known subsequent history of induced abortion while receiving medical assistance from the state of California (Medi-Cal) in 1989 and who had no sleep claims for 1 yr prior to pregnancy resolution. Delivery group had no later abortions	**California Department of Health Services Medi-Cal data** All low–income Delivery: Avg. age: 25 Avg. # of mos. of eligibility: 27 Abortion: Avg. age: 25 Avg. # of mos. of eligibility: 31	Sleep disturbances identified by ICD-9 treatment codes for non-organic sleep disorder and sleep disturbances	- Claims for sleep disorders - Age - Months of eligibility	Used actual claims data, eliminating the concealment problem - Avoids recruitment and retention problems - Eliminated cases with previous sleep claims - With claims data, avoids simplistic forms of assessment - Comparison groups are likely very similar except for the abortion experience - Extended time frame, with repeated measurements enabling more confidence in the causal question	- Women were more likely to be treated for sleep disorders following an induced abortion compared to a birth. -The difference was most pronounced in the first 180 days post pregnancy resolution and was not significant after the third year. Specifically, there was an 85% higher risk for sleep disorders associated with abortion at 180 days and increased risks of 68%, 40%, 41%, and 29% for the 1st year, 2nd year, 3rd year, and across the full 4 year study period respectively.
14) Coleman P, Rue VM, Coyle CT, & Maxey CD (2007). **Induced Abortion and Child-Directed Aggression Among Mothers of Maltreated Children,** *Internet Journal of Pediatrics and Neonatology, 6* (2)	237 mothers who were residents of Baltimore and were receiving AFDC. Women with and without a history of abortion were compared relative to child-directed physical aggression. All the women had a history of child maltreatment	**Fertility and Contraception Among Low-Income Child Abusing and Neglecting Mothers in Baltimore MD Study** Avg. age: 28.4 Avg. # of children: 3.5 Ethnicity: Black 72.2% White: 27.8% Education: >or= 11 years (72%); High school diploma (23%); 13-16 years (5%)	Frequency of throwing objects, shoving, slapping, kicking/biting, hitting, and beating Frequency of physical punishment in general	- Non-voluntary perinatal loss - Socio-demographic, family of origin, and partner aggression variables associated with the choice to abort	- Use of controls - Examined a previously under-investigated segment of the population: predominantly poor, Black women	- Abortion history was associated with significantly more frequent maternal slapping, hitting, kicking/biting, beating, and use of physical punishment in general.

Publication information	*Comparison groups*	*Data source and sample demographics*	*Outcomes examined*	*Controls*	*Positive methodological Features*	*Results*
15) Coleman, P. K., Rue, V., Spence, M., & Coyle, C. (in press). **Abortion and the sexual lives of men and women: Is casual sexual behavior more appealing and more common after abortion?** *International Journal of Clinical and Health Psychology.*	Non-institutionalized U.S. residents, ages 18 to 59. Men and women with and without abortion experience.	**National Health and Social Life Survey (NHSLS)** Among the males sampled 105 (12%) reported having experienced a partner abortion and 767 (88%) did not; whereas among the females, 214 (19.6%) reported having had an abortion and 877 (80.4%) did not. For the full sample, 43% were female and 57% were male. The majority of the respondents were White (71.4%), with 16% Black, 9.4% Hispanic, 1.9% Asian/Pacific Islanders, and 1.2% Native Americans. Education: 14.5% had not graduated from high school, 63% were high school graduates, 15.5% were college graduates, and 6.9% reported an advanced degree.	1) Endorsed appeal of impersonal sexual behaviors (sex with more than one partner, forcing another to have sex, being forced to have sex, watching others have sex, sex with strangers.) 2) Willingness to have sex with someone only if in love. 3) Number of sex partners in the last year. 4) Sexual behavior with a friend and sexual behavior with an acquaintance over the past 12 mos. 5) Impersonal sexual behaviors that occurred at least once in the last 12 months (group sexual activity, sex during a casual encounter, forced sexual activity, payment for sexual activity, and purchasing or renting an x-rated video.)	Controls for family of origin, socio-demographic, reproductive history, and sexual history variables predictive of the choice to abort. Female predictors of abortion: first vaginal intercourse, having lived with both parents at age 14, number of live births, having had a miscarriage, frequency of religious attendance, age. Male predictors of a partner abortion: age left home, educational level attained, partner miscarriage, marital status.	- Use of controls. - Inclusion of men - Large, nationally representative, ethnically diverse sample. - First published study to explore associations between abortion and casual sex.	-Using the female data, abortion was associated with more positive attitudes toward sex with strangers and with being forced to have sex. -With the male data, a partner abortion was associated with attitudes endorsing sex with more than one partner and with strangers. -Both men and women with an abortion experience reported higher levels of disagreement with a statement reflecting willingness to have sex only if in love, reported more sex partners in the last year, and were significantly more likely to have sex with an acquaintance. -Males who experienced a partner abortion were more inclined to have sex with a friend compared to males who never experienced a partner abortion. -An abortion history was associated with a significantly higher likelihood of engagement in specific impersonal sexual behaviors in the previous 12 months: sex during a casual encounter, having forced another to have sex, having been forced by another to have sex among the women sampled. -Engagement in group sex, sex during a casual encounter, having paid for or having been paid for sex, and having purchased or rented an X-rated video were associated with a partner abortion among the males.

Exhibit B:

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Abortion in young women and subsequent mental health

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Background: The extent to which abortion has harmful consequences for mental health remains controversial. We aimed to examine the linkages between having an abortion and mental health outcomes over the interval from age 15–25 years. **Methods:** Data were gathered as part of the Christchurch Health and Development Study, a 25-year longitudinal study of a birth cohort of New Zealand children. Information was obtained on: a) the history of pregnancy/abortion for female participants over the interval from 15–25 years; b) measures of DSM-IV mental disorders and suicidal behaviour over the intervals 15–18, 18–21 and 21–25 years; and c) childhood, family and related confounding factors. **Results:** Forty-one percent of women had become pregnant on at least one occasion prior to age 25, with 14.6% having an abortion. Those having an abortion had elevated rates of subsequent mental health problems including depression, anxiety, suicidal behaviours and substance use disorders. This association persisted after adjustment for confounding factors. **Conclusions:** The findings suggest that abortion in young women may be associated with increased risks of mental health problems. **Keywords:** Abortion, pregnancy, mental disorder, depression, anxiety, suicidal behaviour, substance dependence.

There have been ongoing debates about the issue of abortion as a response to unwanted pregnancy. These debates have centred around a series of ethical, religious and other issues concerning the rights of the fetus and the mother in circumstances of unwanted pregnancy (Blanchard, 2002; Chen, 2004; Major, 2003). Although much of the debate in this area has focused on ethical issues, it has also involved empirical concerns about the linkages between unwanted pregnancy, abortion and long-term mental health.

Specifically, a number of authors have proposed that abortion may have longer-term adverse mental health effects owing to feelings of guilt, unresolved loss and lowered self-esteem (Ney, Fung, Wickett, & Beaman-Dodd, 1994; Speckhard & Rue, 1992). These concerns have been most clearly articulated by Reardon and colleagues who claim that abortion may increase risks of a wide range of mental disorders, including substance abuse, anxiety, hostility, low self-esteem, depression and bipolar disorder (Cougle, Reardon, & Coleman, 2003; Reardon & Cougle, 2002; Reardon et al., 2003). Despite such claims, the evidence on the linkages between abortion and mental health proves to be relatively weak with some studies finding evidence of this linkage (Gissler, Hemminki, & Lonnqvist, 1996; Reardon & Cougle, 2002; Reardon et al., 2003) and others failing to find such linkages (Gilchrist, Hannaford, Frank, & Kay, 1995; Major et al., 2000; Pope, Adler, & Tschann, 2001; Zabin, Hirsch, & Emerson, 1989). Furthermore, the studies in this area have been marked by a number of design limitations, including the use of selected samples, limited length of follow-up, retrospective reports of mental health prior to abortion, and failure to control confounding (Adler, 2000; Major et al., 2000).

Perhaps the most comprehensive analysis of this topic is provided by an analysis of the National Longitudinal Study of Youth (NLSY) reported by Cougle et al. (2003). This analysis found that women who reported induced abortion were 65% more likely to score in the high-risk range for clinical depression than women whose pregnancies resulted in birth. This association was evident after control for a number of prospectively assessed confounders including pre-pregnancy psychological state. However, there were potential limitations of this study. First, the study failed to provide comprehensive control of pre-pregnancy factors, with the analysis being limited to the data available from the NLSY. Second, there was evidence of substantial underreporting of abortion in the study, with an estimated 60% of those undergoing induced abortion failing to report this (Cougle et al., 2003).

A threat to study validity in this area arises from uncontrolled confounding (Major, 2003). In particular, evidence linking abortion to higher rates of subsequent mental disorder is consistent with two explanations. The first is that these associations reflect a cause and effect linkage in which exposure to abortion has adverse effects on subsequent mental health. The alternative is that the association arises because abortion is associated with third or confounding factors that are also related to mental health outcomes. There are several potential sources of confounding relating to pre-abortion background. These include: socio-economic factors; childhood and family factors; mental health and personality factors. To date, the control of such factors in studies

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of the mental health effects of abortion has been limited. A further class of factors that may also confound the association may relate to the woman's circumstances at the time of pregnancy, including age, the planning of pregnancy, and the stability of partnerships (Adler, 1992; Major, 2003).

In most studies to date, comparisons have been made between those who became pregnant but did not seek abortion and those who became pregnant and sought an abortion. Those women who were not (yet) pregnant were excluded from the analysis. Whilst it may seem intuitively reasonable to exclude the not pregnant group from analysis, the omission of this group leads to a problem of interpretation. In particular, the finding that rates of mental health problems are higher amongst those women having abortions than those women becoming pregnant and not seeking abortion is consistent with two quite different interpretations. First, the results are consistent with the view that exposure to abortion leads to an increased susceptibility to subsequent mental health problems. However, the alternative explanation is that pregnancy without abortion is beneficial for mental health. To distinguish between these alternatives requires that results for the not pregnant group are included in analysis to provide a reference by which the direction of association may be determined.

Against this background, this paper reports an analysis of the linkages between abortion in young women aged 15–25 and subsequent mental health in a birth cohort of young women studied to the age of 25. The specific aims of this analysis were:

1. To examine the extent to which mental health outcomes in the interval 15–25 years varied between the three pregnancy status groups: not pregnant by age 25; pregnant no abortion; pregnant abortion.
2. To adjust any association between mental health outcomes and pregnancy status groups for confounding pre-pregnancy factors, including social background, childhood and family history; mental health and personality factors.
3. To use the results of a covariate adjustment method to estimate the adjusted rates of mental disorders in the pregnant no abortion and not pregnant groups relative to rates of mental disorders in the pregnant abortion group.

Methods

The data used in this analysis were gathered over the course of the Christchurch Health and Development Study (CHDS). The CHDS is a longitudinal study of a birth cohort of 1265 children born in the Christchurch (NZ) urban region who have been studied from birth to age 25 years. The present analysis is based on the cohort of female participants for whom information on pregnancy history and mental health outcomes was available. The sample sizes used in the analysis range between 506 and 520 depending on the timing of assessment of pregnancy history and mental health. These samples represent between 80% and 83% of the original cohort of 630 females. All data were collected only on the basis of signed consent from research participants. The study had ethical approval from the Canterbury Ethics Committee.

Pregnancy and abortion 15–20 years

In New Zealand, the provision of legal abortion is determined by the Contraception, Sterilisation and Abortion Act, 1977 and overseen by the Abortion Supervisory Committee. The Act requires that certain criteria are met before allowing a woman to undergo a legal abortion. Firstly, women must approach their doctor and are then referred to specialist consultants. Two certifying consultants must then agree: 1) that the pregnancy would seriously harm the life, physical or mental health of the woman or baby; or 2) that the pregnancy is the result of incest; or 3) that the woman is severely mentally handicapped. An abortion will also be considered on the basis of age, or when the pregnancy is the result of rape. Abortions in New Zealand are free, and legal for all ages, and parental consent is not required for women under the age of 16. Counselling is required for all women considering an abortion (Ministry of Health, 1998).

Sample members were interviewed at ages 15, 16, 18, 21 and 25 about pregnancy and abortion occurring since the previous assessment. These reports showed that by age twenty five, 205 women (41% of the cohort) had become pregnant on at least one occasion and 74 (14.6%) reported seeking and obtaining an abortion at least once. In total there were 422 pregnancies reported prior to age 25. Of these, 90 were terminated. To cross-validate self-report data, the study estimates were compared with officially recorded pregnancy and abortion statistics for New Zealand (Abortion Supervisory Committee, 2002). These comparisons suggested some underreporting of abortion. The observed rate of abortion by age 25 in the cohort (178 per 1,000) was 81% of the rate expected based on population figures (220 per 1,000). This difference was statistically significant ($p < .05$).

Mental health 15–25 years

At ages 16, 18, 21 and 25 years, participants were questioned about mental health issues since the previous assessment using questionnaires based on the Diagnostic Interview Schedule for Children (DISC) (Costello, Edelbrock, Kalas, Kessler, & Klaric, 1982) at age 16 years and the Composite International Diagnostic Interview (CIDI) (World Health Organization, 1993) at ages 18–25 years, supplemented by additional measures. From this questioning it was possible to ascertain the proportion of young women who met DSM-IV criteria for the following disorders during the intervals 15–18, 18–21 and 21–25 years: a) major depression; b) anxiety disorders (including generalised anxiety, panic disorder, agoraphobia, social phobia and

specific phobia); c) alcohol dependence; d) illicit drug dependence. In addition, measures of DSM-IV disorders were supplemented by measures of self-reported suicidal ideation and attempts.

Covariate factors

Measures of family socio-demographic background. (a) Maternal education was assessed at the time of the cohort member's birth using a 3-point scale (no formal qualifications/secondary qualifications/tertiary qualifications). (b) Family socio-economic status was assessed at birth using the Elley–Irving revised index of socio-economic status for New Zealand (Elley & Irving, 1976).

Measures of family functioning. (a) Changes of parents (0–15 years): Using detailed information on patterns of family change gathered over the interval from birth to 15 years, a measure of family instability was constructed on the basis of a count of the number of changes of parents experienced by the child by age 15. (b) Parental history of criminality: When sample members were aged 15 years parents were questioned about their involvement in criminal offending. Sample members were classified as having a parental history of criminality if any parent reported a history of offending. (c) Childhood sexual abuse (0–16 years): At age 18 and 21 years, sample members were questioned about their experience of sexual abuse in childhood (<16 years) (Fergusson, Lynskey, & Horwood, 1996). For the purposes of the present analysis, sample members were classified as having experienced childhood sexual abuse if they reported at either age 18 or 21 any episode of abuse involving physical contact with a perpetrator. (d) Childhood physical abuse (0–16 years): At age 18 and 21 years sample members were questioned about the extent to which their parents used physical punishment during childhood (<16 years) using a 5-point scale (Fergusson & Lynskey, 1997). Sample members were classified as having experienced physical child abuse if they reported at either age 18 or 21 that at least one parent had regularly used physical punishment, had used physical punishment too often or too severely, or had treated them in a harsh and abusive manner.

Childhood conduct problems (7–9 years). At age 7, 8, 9 years the extent to which sample members exhibited tendencies to conduct disordered and oppositional behaviours was assessed using a scale that combined items from the Rutter (Rutter, Tizard, & Whitmore, 1970) and Conners (Conners, 1969, 1970) child behaviour rating scales. Separate ratings were obtained from the child's parent and class teacher. Parent and teacher ratings were summed for each year and then averaged over the interval from 7–9 years to provide a robust measure of the child's tendencies to conduct problems. The reliability of the resulting scale, assessed using coefficient α, was .97.

Child educational achievement. At each assessment from age 11–13 years, the child's class teacher was asked to rate the child's performance in each of five areas of the curriculum (reading, handwriting, written expression, spelling, mathematics) using a 5-point scale ranging from very good to very poor. To provide a global measure of the child's educational achievement over the interval from 11–13 years, the teacher ratings were summed across years and curriculum areas and then averaged to provide a teacher rating grade point average for each child. The reliability of this measure was $\alpha = .96$.

Measures of child personality. (a) Child neuroticism was assessed at age 14 years using a short-form version of the neuroticism scale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1964). The reliability of this scale was $\alpha = .80$. (b) Child self-esteem was assessed at age 15 years using the Coopersmith Self-Esteem Inventory (SEI) (Coopersmith, 1981). The reliability of this scale, assessed using coefficient α, was .87.

Measures of adolescent adjustment. (a) Early onset sexual intercourse: At age 18 sample members were questioned about their sexual behaviours, including the age of onset of intercourse. Young people who reported that they had first had sex before age 16 were classified as having early sexual onset. (b) Substance use (15 years): At age 15 sample members were questioned about their use of tobacco, alcohol and cannabis. Tobacco use was assessed on the basis of a 5-point scale reflecting the current frequency of cigarette smoking at age 15. This scale ranged from 'non-smoker' through to 'daily smoker'. The frequency of alcohol use in the past 12 months was assessed using a 6-point scale that ranged from 'never' through to 'almost every day'. In addition, a dichotomous measure of cannabis use was created based on the young person's report of cannabis use in the past 12 months. (c) Mental health problems (15 years): At age 15, young people were administered a mental health interview that combined components of the Diagnostic Interview Schedule for Children (DISC) (Costello et al., 1982) and other measures to assess a range of DSM-III-R disorders in the cohort over the previous 12 months. This information was used to construct DSM-III-R diagnoses of major depression and anxiety disorders, including overanxious disorder, generalised anxiety disorder, social phobia and simple phobia. In addition, sample members were also questioned about the frequency of suicidal thoughts in the previous 12 months.

Young adult lifestyle factors. At each assessment from age 18 onwards participants were questioned about aspects of their living arrangements since the previous assessment including: a) living with parents and age of leaving the family home; and b) entry into cohabiting relationships.

Statistical analysis

The associations between pregnancy/abortion status and mental health at ages 15–18, 18–21, and 21–25 years (Table 1) were tested for statistical significance by fitting random effects models to the repeated measures data. For dichotomous outcomes (depression,

Table 1 Rates of disorder (15–18, 18–21, 21–25 years) by cumulative history of pregnancy/abortion to age 18, 21, 25 years respectively

Measure	Not Pregnant	Pregnant No Abortion	Pregnant Abortion	*p*
Major depression (%)				
15–18 years	31.2	35.7	78.6	
18–21 years	27.5	34.5	45.1	
21–25 years	21.3	30.5	41.9	
Pooled risk ratio (95% CI)[1]	.35[a] (.20–.59)	.49[a] (.27–.91)	1[b]	<.001
Anxiety disorder (%)				
15–18 years	37.9	35.7	64.3	
18–21 years	15.2	25.0	25.5	
21–25 years	16.9	29.8	39.2	
Pooled risk ratio (95% CI)[1]	.35[a] (.19–.63)	.54[a, b] (.27–1.07)	1[b]	.001
Suicidal ideation (%)				
15–18 years	23.0	25.0	50.0	
18–21 years	12.5	17.9	25.5	
21–25 years	8.0	13.0	27.0	
Pooled risk ratio (95% CI)[1]	.25[a] (.13–.50)	.31[a] (.14–.69)	1[b]	<.001
Alcohol dependence (%)				
15–18 years	5.2	7.1	.0	
18–21 years	4.3	6.0	5.9	
21–25 years	2.7	3.1	6.8	
Pooled risk ratio (95% CI)[1]	.53[a] (.17–1.61)	.56[a] (.15–2.10)	1[a]	.53
Illicit drug dependence (%)				
15–18 years	4.0	3.6	.0	
18–21 years	1.3	7.1	17.7	
21–25 years	1.7	4.6	12.2	
Pooled risk ratio (95% CI)[1]	.10[a] (.03–.32)	.16[a] (.04–.65)	1[b]	<.001
Mean (SD) number of mental health problems				
15–18 years	1.01 (1.13)	1.07 (1.39)	1.93 (.73)	
18–21 years	.61 (.96)	.90 (1.14)	1.20 (1.20)	
21–25 years	.50 (.85)	.81 (1.05)	1.27 (1.30)	
Pooled risk ratio (95% CI)[1]	.57[a] (.45–.72)	.66[a] (.50–.87)	1[b]	<.001
Sample sizes				
15–18 years	478	28	14	
18–21 years	375	84	51	
21–25 years	301	131	74	

[1]The results of planned comparisons of the rate of each outcome across the three groups are indicated by the superscripts ([a, b]). Different superscripts indicate that the groups were significantly ($p < .05$) different on their rates of disorder. Similar superscripts indicate that groups were not significantly different in their rates of disorder.

anxiety, suicidal ideation, substance dependence) logistic regression models were fitted, whereas for the count of number of mental health problems Poisson regression was used. For each outcome (Y) the general model fitted was of the form:

$$G(Yit) = B0 + B1X1it + B2X2it + Ui$$

where G(Yit) was the log odds of Y for the i-th individual in the t-th time interval for dichotomous outcomes or the log of the rate of problems for the i-th individual in the t-th time interval for the count of the number of mental health problems; X1it and X2it were time dynamic design variates reflecting the pregnancy/abortion status of the i-th individual up to the t-th interval, with X1it representing the Never Pregnant group and X2it the Pregnant No Abortion group, respectively, relative to the Abortion group; and Ui was an individual specific random effect. For each outcome a test of the overall significance of the pooled association with pregnancy/abortion history was obtained from a Wald chi squared test of the joint null hypothesis $B1 = 0$, $B2 = 0$. Estimates of the pooled risk ratios of disorder (odds ratios for dichotomous outcomes, incidence rate ratio for the problem count) in the Never Pregnant and Pregnant No Abortion groups relative to the Abortion group were given by e^{B1}, e^{B2} respectively.

The associations between pregnancy/abortion history and covariates (Table 2) were tested for statistical significance using the chi squared test of independence. The adjusted associations between pregnancy/abortion history and mental health outcomes (Table 3) were examined by extending the random effects models described above to include the covariate factors in Table 2. Finally, the association between pregnancy/abortion history prior to age 21 years and subsequent mental health problems from 21–25 years (Table 4) was modelled using Poisson regression in which the rate mental health problems was modelled as a log-linear function of pregnancy/abortion history prior to age 21 and covariates.

Results

Associations between pregnancy/abortion history and mental health outcomes

Table 1 shows the associations between pregnancy/abortion history (classified as not pregnant; pregnant no abortion; pregnant abortion) by ages 18, 21 and 25 years and measures of mental health assessed at ages 15–18, 18–21 and 21–25 years respectively. The

Table 2 Profile of social, family and childhood characteristics (0–15 years) and young adult lifestyle factors by pregnancy/abortion status (15–25 years)

Measure	Not Pregnant ($N = 301$)	Pregnant No Abortion ($N = 131$)	Pregnant Abortion ($N = 74$)	p^1
Socio-demographic background				
% Mother lacked formal educational qualifications	41.2	70.2	51.4	<.0001
% Family of semi-skilled, unskilled socio-economic status	15.0	34.4	31.1	<.0001
Family functioning				
% 3+ changes of parents (0–15 years)	10.6	34.4	28.4	<.0001
% Parental history of offending (15 years)	6.3	22.4	17.8	<.0001
% Childhood contact sexual abuse	11.3	31.8	25.7	<.0001
% Childhood physical abuse	7.0	26.9	32.4	<.0001
Childhood behaviour/educational achievement				
% In highest quartile of childhood conduct problems (7–9 years)	21.1	33.9	37.5	.002
% In lowest quartile on grade point average (11–13 years)	22.4	39.3	31.5	.002
Childhood personality				
% In highest quartile on neuroticism (14 years)	20.1	25.2	34.3	.038
% In lowest quartile on self-esteem (15 years)	19.2	32.8	38.0	<.001
Adolescent adjustment				
% Early onset sexual intercourse (<16 years)	13.0	42.3	35.6	<.0001
% Daily smoker (15 years)	3.3	19.0	14.1	<.0001
% Drinking alcohol at least monthly (15 years)	19.6	32.8	38.0	<.001
% Used cannabis (15 years)	4.4	16.4	15.5	<.0001
% Prior history of depression/anxiety disorder (15 years)	13.3	25.2	32.4	<.0001
% Prior history of suicidal ideation (15 years)	6.0	11.5	25.7	<.0001
Time dynamic lifestyle factors				
% Living with parents at				
18 years	88.0	55.7	55.4	<.0001
21 years	49.8	22.1	29.7	<.0001
25 years	21.3	16.8	12.2	.15
% Cohabiting with partner at				
18 years	2.0	18.3	14.9	<.0001
21 years	17.6	43.5	33.8	<.0001
25 years	44.9	66.4	59.5	<.0001
% Ever pregnant by age				
18 years	–	18.5	24.3	.32
21 years	–	60.3	73.0	.07

[1]Chi squared test of independence.

Table 3 Risk ratios[1] (95% CI) of disorder by pregnancy/abortion status after covariate adjustment

Measure	Not Pregnant	Pregnant No Abortion	Pregnant Abortion	p	Significant covariates[2]
Major depression	.48[a] (.27–.84)	.35[a] (.18–.67)	1[b]	.006	1–4, 6–9
Anxiety disorder	.52[a, b] (.27–1.02)	.44[a] (.21–.93)	1[b]	.082	2, 4, 8
Suicidal ideation	.42[a] (.21–.85)	.24[a] (.11–.56)	1[b]	.004	2, 3, 5, 6, 9–11
Illicit drug dependence	.20[a] (.06–.69)	.15[a] (.04–.63)	1[b]	.014	2, 10
Number of mental health problems	.66[a] (.52–.84)	.58[a] (.44–.76)	1[b]	<.001	2–5, 6, 8, 9

[1]The results of planned comparisons of the adjusted rate of each outcome across the three groups are indicated by the superscripts ([a, b]). Different superscripts indicate that the groups were significantly ($p < .05$) different in their adjusted rates of disorder. Similar superscripts indicate that groups were not significantly different in their adjusted rates of disorder.
[2]Significant covariates: 1 = maternal education; 2 = childhood sexual abuse; 3 = childhood physical abuse; 4 = child neuroticism (14 years); 5 = child self-esteem (15 years); 6 = grade point average (11–13 years); 7 = child smoking (15 years); 8 = prior history of depression/anxiety (15 years); 9 = prior history of suicidal ideation (15 years); 10 = living with parents; 11 = living with partner.

measures of mental health include DSM-IV major depression, anxiety disorder, alcohol and illicit drug dependence, suicidal ideation and total number of disorders. All comparisons were tested for overall statistical significance using a random effects model to estimate the association between pregnancy/abortion history and mental health (see Methods). Examination of the table shows:

Table 4 Covariate adjusted incidence rate ratios (95% CI) between number of mental health problems (21–25 years) and pregnancy/abortion history prior to age 21

	Not Pregnant	Pregnant No Abortion	Pregnant Abortion	*p*
Incidence rate ratio (95% CI)[1,2]	.60[a] (.44–.83)	.67[a] (.46–.97)	1[b]	.008

[1]The results of planned comparisons of the adjusted rate of each outcome across the three groups are indicated by the superscripts ([a, b]). Different superscripts indicate that the groups were significantly ($p < .05$) different in their adjusted rates of disorder. Similar superscripts indicate that groups were not significantly different in their adjusted rates of disorder.
[2]Significant covariates include: childhood sexual abuse; childhood physical abuse; self-esteem (15 years); grade point average (11–13 years).

1. For all outcomes, except alcohol dependence, there were significant ($p < .001$) associations between pregnancy history and rates of disorder. These associations reflected a tendency for rates of mental health problems to be highest amongst those having abortions and lowest amongst those who had not become pregnant, with those who became pregnant but did not have an abortion having rates that were intermediate between these extremes.
2. For all outcomes except alcohol dependence, the results of pairwise comparisons showed a generally similar pattern in which rates of disorder did not vary significantly ($p > .05$) between the never pregnant and pregnant no abortion groups. In all comparisons, those becoming pregnant and seeking abortions had significantly ($p < .05$) higher rates of disorder than the not pregnant group and, with the exception of anxiety disorder, significantly higher rates of disorder than the pregnant no abortion group.

Adjustment for confounding

A limitation of the analysis in Table 1 is that it does not take into account third or confounding factors that might explain the elevated rates of mental disorders amongst those having abortions. This issue is examined in Table 2, which shows the associations between pregnancy/abortion status by age 25 and a range of potential confounding factors. Examination of the table shows evidence of significant tendencies for those who became pregnant by age 25 to exhibit a profile characterised by greater childhood social and economic disadvantage, family dysfunction and individual adjustment problems. In addition, those who became pregnant were more likely to have left the family home at a young age and to have entered a cohabiting relationship.

To take into account the factors in Table 2 the associations between pregnancy/abortion history and mental health outcomes were adjusted by extending the random effects models to include covariate factors (see Methods). The results of this analysis are shown in Table 3, which reports the covariate adjusted risk ratios, the overall test of significance and the results of pairwise comparisons of the adjusted rates. For each analysis the table also reports the significant covariate factors. The table shows:

1. For four of the five outcomes (depression, suicidal ideation, illicit drug dependence, total mental health problems) the association with pregnancy/abortion history remained statistically significant ($p < .05$) after control for confounders. For the remaining outcome, anxiety disorder, the adjusted association was marginally significant ($p = .08$).
2. Pairwise comparisons showed that those who were not pregnant and those who were pregnant without abortion had adjusted rates of disorder that were not significantly different ($p > .05$). However, in all cases, the abortion group had significantly ($p < .05$) higher rates of disorder than the pregnant no abortion group, and with the exception of anxiety disorder, significantly ($p < .05$) higher rates than the not pregnant group.

A prospective analysis

A limitation of the analysis reported in Tables 1 and 3 is that the associations between pregnancy/abortion history and mental health involved the concurrent assessment of pregnancy status and mental health. This raises issues about the direction of any causal association since the results may be interpreted in two ways: (a) mental health problems lead to increased risks of abortion; or (b) abortion leads to increased risks of mental health problems. To address this issue, the analysis was extended to produce a prospective analysis in which pregnancy/abortion history prior to age 21 was used to predict mental health outcomes from 21–25 years. This analysis was limited to the overall number of disorders owing to the relatively sparse data for specific disorders over the interval 21–25 years and the smaller number of women who became pregnant by age 21.

The results of this analysis are summarised in Table 4 which shows estimates of the covariate adjusted incidence rate ratios for the number of mental health problems. The association between pregnancy/abortion history prior to 21 and number of mental health problems from 21–25 years remained statistically significant after covariate adjustment ($p = .008$). In addition, consistent with

the previous analysis, the results show a clear pattern in which, after covariate adjustment, those who were not pregnant and those who were pregnant but did not have an abortion had rates of disorder that were not significantly different ($p > .05$), whereas those having abortions had rates of disorder that were significantly ($p < .05$) higher than both of these groups.

Discussion

In this study we have used data gathered over a 25-year longitudinal study to examine linkages between mental health and exposure to abortion in adolescence and young adulthood. This study produced evidence consistent with the view that in young women, exposure to abortion was associated with a detectable increase in risks of concurrent and subsequent mental health problems. This conclusion is based on the following lines of evidence:

1. On the basis of concurrently assessed data (Table 1), young women reporting abortions had elevated rates of mental health problems when compared with those becoming pregnant without abortion and those not becoming pregnant.
2. These associations persisted after extensive control for a range of confounding factors, suggesting a possible causal linkage between exposure to abortion and mental health problems (Table 3).
3. To examine the direction of causation, a prospective analysis was conducted in which exposure to abortion by age 21 was used to predict subsequent mental health problems (Table 4). That analysis showed that even following control for confounding factors, exposure to abortion prior to age 21 was associated with increased risks of later mental health problems.

In general, these results are consistent with the view that exposure to abortion was associated with increased risks of mental health problems independently of confounding factors. The study estimates suggested that those who were not pregnant or those becoming pregnant but not having an abortion had overall rates of mental disorders that were between 58% and 67% of those becoming pregnant and having an abortion.

In comparison to previous research in this area, the present study has a number of clear strengths which include: a) the use of a longitudinal design in which pregnancy and mental health were assessed throughout adolescence into young adulthood; b) assessment of mental disorders using standardised diagnostic criteria; c) the availability of a range of concurrent and prospectively assessed covariate factors; d) adjusted contrasts between those having abortion and equivalent groups of those becoming pregnant and those not pregnant. To our knowledge, no previous study of this topic has combined all of these features to examine the linkages between abortion and mental health. However, whilst the present study has a number of strengths, there are some limitations that should not be overlooked. In particular, potential threats to study validity include:

1. *Omitted covariates*: Although the study findings show that young women exposed to abortion are at increased risks of mental health problems after adjustment for a range of confounding factors, the possibility that the association reflects sources of confounding that were not controlled should not be overlooked.
2. *Errors in the ascertainment of abortion*: Comparison of the rates of abortion reported by this cohort with a population estimate based on official record data suggested moderate accuracy in the reporting of abortion, with the reported rates for the cohort being 81% of the estimated population rate for women aged 15–25. These estimates suggested some underreporting of abortion in the cohort (see Methods). In turn, this raises the possibility that errors in the reporting of abortion may have distorted the results (Reardon & Cougle, 2002).
3. *The role of contextual factors*: An important threat to study validity comes from the lack of information on contextual factors associated with the decision to seek an abortion. It is clear that the decision to seek (or not seek) an abortion following pregnancy is likely to involve a complex process relating to: a) the extent to which the pregnancy is seen as wanted; b) the extent of family and partner support for seeking or not seeking an abortion; c) the woman's experiences in seeking and obtaining an abortion. It is possible, therefore, that the apparent associations between abortion and mental health found in this study may not reflect the traumatic effects of abortion *per se* but rather other factors which are associated with the process of seeking and obtaining an abortion. For example, it could be proposed that our results reflect the effects of unwanted pregnancy on mental health rather than the effects of abortion *per se* on mental health. The data available in this study was not sufficient to explore these options. However, it is our intention to study this cohort at age 30 and at that time it may be possible to gather further contextual information on the factors associated with decisions regarding abortion.

Notwithstanding the reservations and limitations above, the present research raises the possibility that for some young women, exposure to abortion is a traumatic life event which increases longer-term susceptibility to common mental disorders. These findings are inconsistent with the current consensus on the psychological effects of abortion. In particular, in its 2005 statement on abortion, the American

Psychological Association concluded that 'well-designed studies of psychological responses following abortion have consistently shown that risk of psychological harm is low ... the percentage of women who experience clinically relevant distress is small and appears to be no greater than in general samples of women of reproductive age' (American Psychological Association, 2005). This relatively strong conclusion about the absence of harm from abortion was based on a relatively small number of studies which had one or more of the following limitations: a) absence of comprehensive assessment of mental disorders; b) lack of comparison groups; and c) limited statistical controls. Furthermore, the statement appears to disregard the findings of a number of studies that had claimed to show negative effects for abortion (Cougle et al., 2003; Gissler et al., 1996; Reardon & Cougle, 2002).

On the basis of the current study, it is our view that the issue of whether or not abortion has harmful effects on mental health remains to be fully resolved. Certainly in this study, those young women who had abortions appeared to be at moderately increased risk of both concurrent and subsequent mental health problems when compared with equivalent groups of pregnant or non-pregnant peers. While it is possible to dismiss these findings as reflecting shortcomings in the assessment of exposure to abortion or control of confounders (see above), it is difficult to disregard the real possibility that abortion amongst young women is associated with increased risks of mental health problems. There is a clear need for further well-controlled studies to examine this issue before strong conclusions can be drawn about the extent to which exposure to abortion has harmful effects on the mental health of young women.

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References

Abortion Supervisory Committee. (2002). *Annual Report to Parliament [reprinted in 'Demographic Trends 2002': Statistics New Zealand]*. Available: http://www.stats.govt.nz [2004, January 21].

Adler, N.E. (1992). Unwanted pregnancy and abortion: Definitional and research issues. *Journal of Social Issues, 48*, 1–35.

Adler, N.E. (2000). Abortion and the null hypothesis. *Archives of General Psychiatry, 57*, 785–786.

American Psychological Association. (2005). *APA briefing paper on the impact of abortion on women*. Available: http://www.apa.org/ppo/issues/womenabortfacts.html [2005, 31 January].

Blanchard, D.A. (2002). Depression and unintended pregnancy in young women. Readers should bear in mind potential conflict of interest. *British Medical Journal, 324*, 1097; author reply 1097–1098. [serial on the internet]. Available from: http://www.bmjjournals.com/cgi/content/full/1324/7345.

Chen, J. (2004). Campaign 2004: Huge abortion rights rally in DC. CBSNEWS.com 2004 April 26 [cited 2004 October 28]. Available from: http://www.cbsnews.com/stories/2004/02/09/politics/main598867.shtml.

Conners, C.K. (1969). A teacher rating scale for use in drug studies with children. *American Journal of Psychiatry, 126*, 884–888.

Conners, C.K. (1970). Symptom patterns in hyperkinetic, neurotic and normal children. *Child Development, 41*, 667–682.

Coopersmith, S. (1981). *SEI – Self esteem inventories*. Palo Alto, CA: Consulting Psychologists Press.

Costello, A., Edelbrock, C., Kalas, R., Kessler, M., & Klaric, S.A. (1982). *Diagnostic Interview Schedule for Children (DISC)*. Bethesda, MD: National Institute of Mental Health.

Cougle, J.R., Reardon, D.C., & Coleman, P.K. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. *Medical Science Monitor, 9*, CR105–112.

Elley, W.B., & Irving, J.C. (1976). Revised socio-economic index for New Zealand. *New Zealand Journal of Educational Studies, 11*, 25–36.

Eysenck, H.M., & Eysenck, S.B.G. (1964). *Manual of the Eysenck Personality Inventory*. London: London University Press.

Fergusson, D.M., & Lynskey, M.T. (1997). Physical punishment/maltreatment during childhood and adjustment in young adulthood. *Child Abuse and Neglect, 21*, 617–630.

Fergusson, D.M., Lynskey, M.T., & Horwood, L.J. (1996). Childhood sexual abuse and psychiatric disorder in young adulthood: I. Prevalence of sexual abuse and factors associated with sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1355–1364.

Gilchrist, A.C., Hannaford, P.C., Frank, P., & Kay, C.R. (1995). Termination of pregnancy and psychiatric morbidity. *British Journal of Psychiatry, 167*, 243–248.

Gissler, M., Hemminki, E., & Lonnqvist, J. (1996). Suicides after pregnancy in Finland, 1987–94: Register linkage study. *British Medical Journal, 313*, 1431–1434.

Major, B. (2003). Psychological implications of abortion – highly charged and rife with misleading research. *Canadian Medical Association Journal, 168*, 1257–1258.

Major, B., Cozzarelli, C., Cooper, M.L., Zubek, J., Richards, C., Wilhite, M., & Gramzow, R.H. (2000). Psychological responses of women after first-trimester abortion. *Archives of General Psychiatry, 57*, 777–784.

Ministry of Health. (1998). *Considering an abortion? What are your options?* Available: http://www.moh.govt.nz [2005, 11 January].

Ney, P.G., Fung, T., Wickett, A.R., & Beaman-Dodd, C. (1994). The effects of pregnancy loss on women's health. *Social Science and Medicine, 38*, 1193–1200.

Pope, L.M., Adler, N.E., & Tschann, J. (2001). Postabortion psychological adjustment: Are minors at increased risk? *Journal of Adolescent Health, 29*, 2–11.

Reardon, D.C., & Cougle, J.R. (2002). Depression and unintended pregnancy in the National Longitudinal Survey of Youth: A cohort study. *British Medical Journal, 324*, 151–152, [serial on the internet]. Available from: http://www.bmjjournals.com/cgi/content/full/324/7330.

Reardon, D.C., Cougle, J.R., Rue, V.M., Shuping, M.W., Coleman, P.K., & Ney, P.G. (2003). Psychiatric admissions of low-income women following abortion and childbirth. *Canadian Medical Association Journal, 168*, 1253–1256.

Rutter, M., Tizard, J., & Whitmore, K. (1970). *Education, health and behaviour*. London: Longmans.

Speckhard, A.C., & Rue, V.M. (1992). Postabortion syndrome: An emerging public health concern. *Journal of Social Issues, 48*, 95–119.

World Health Organization. (1993). *Composite International Diagnostic Interview (CIDI)*. Geneva: World Health Organization.

Zabin, L.S., Hirsch, M.B., & Emerson, M.R. (1989). When urban adolescents choose abortion: Effects on education, psychological status and subsequent pregnancy[erratum appears in Fam Plann Perspect 1990 Jan–Feb;22(1):48]. *Family Planning Perspectives, 21*, 248–255.

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My name is Vera Faith Lord, and I am testifying in opposition to Senate Bill 398.

I was 34 years old when I killed my son. If I had allowed him to live, he would have been born on my 35th birthday, & he would have turned 25 this past August. I was 21 weeks pregnant. Up until 2 days before the abortion, I didn't know I was pregnant. I'd had 2 negative pregnancy tests & 2 Doctors tell me I could never get pregnant. I thought I had a tumor – I thought I was dying.

On the night my son was conceived, I not only got him, I got a black eye, a broken jaw, & a broken rib. I was in a dysfunctional, abusive marriage, & I was using alcohol, cocaine, & amphetamines – In short, I was the Poster Child for the so-called "justifiable abortion". On the advice of a Doctor, a clergyman, & everyone around me, I went ahead & I did it: I had the abortion. --- Now we'll talk about Afterward.

At some point after the abortion, (the time frame varies from woman to woman) an interesting thing happens: Mother Nature shows up –Big-Time – in the form of the strongest instinct on the planet –the Maternal Instinct. It's stronger than survival, & it's alive & well in all of us who are female, whether we want it or not. It appears in full Primal force, & we have one awful moment when we KNOW that we have killed our child.

It's like putting your hand into fire, & holding it there – Everything in you screams to pull back – run away -- & that's what we do: We spend the rest of our lives running away from that moment – It's called Post-Abortion Syndrome & it's the worst feeling in the world.

If we really could run away, that would almost make it all right, but we can't -- & the reason we can't is that we have a **DEAD BABY** – no less than the mother whose baby died in any other way. The fact that we participated in the killing, doesn't make the baby any less dead.

When someone dies, you **MUST** acknowledge, grieve & mourn that death. – If you cannot, you're in serious psychological trouble – They call it Impacted Grief & it's a big part of Post Abortion Syndrome, along with migraines, eating disorders, relationship problems, inability to bond, & many others. We who are Post-Abortive have lifestyles ranging from Compulsive Perfectionism down to Suicidal Self-Destruction.

There is a healing process. When I began my healing in 1997, I did lots of research & I discovered that in 1997 – 10 years ago – there had been 9 books written & there were 21 national organizations just to help Post-Abortive mothers (& fathers). You've probably never heard of any of them, & there's a good reason why you haven't.

If you knew about all that, you'd know the dirty little secret behind the door called "Choice" – The baby is not the only one who dies – big parts of his mother die right along with him. It doesn't get better – she keeps on dying spiritually, psychologically, emotionally, & sometimes physically until something either shakes her out of denial, & she begins the healing process OR she takes her Post abortion Syndrome to her grave ----- never connecting the dots, never realizing that her migraines, her eating disorders, her inability to bond –all stem back to something she may have done 20 or 30 or 40 years ago – something she THINKS she feels perfectly OK about. --- Something society tells her she MUST feel OK about.

Everyone here today knows someone who's had an abortion. Statistics say you know more than one of us. We are your mothers, grand mothers sisters, daughters, wives, friends, & co-workers. We're all around you. If you're thinking you don't know anyone, there's only one reason: You don't know who it is yet.

Many say "I do know someone & she seems to be OK" – she's not. There's research being done right now that says Post Abortion Syndrome is hormonal – How she feels intellectually about the abortion simply doesn't matter. It's literally her own body not allowing her to forget.

One of the steps in our healing process is to name the baby who has died, & to finally accept, grieve, & mourn that death – That may sound morbid, but it's a very healthy, very necessary thing that we need to do to get better.

My son's name is Gabriel. About a year after my healing began, I saw a woman carrying a baby boy about a year old through a doorway. She walked a little too close to the door, & he hit his head & began to shriek as only a one-year-old can. She stood him up, kneeled down in front of him, & rubbed his head, saying "Oh Mommy's sorry you hit your head" --- Just like turning off a light switch, the shrieking stopped & she had made it all better.

I thought nothing of it at the time, but it resonated in my sub-conscious, & about 8 hours later, I found myself on the floor in my living room, rocking back & forth, & sobbing & talking to my son, saying "Gabriel, Mommy is sorry --- Mommy is so sorry".

You have no idea what that feels like. ---- I'm glad it happened because it's part of my healing process. --- I am here today speaking to you so that neither you nor anyone you care about will ever have to experience a moment like that, because you'll never have to heal from something like what I did.

I urge you to vote against Senate Bill 398.

PLANNED PARENTHOOD ADVOCATES OF WISCONSIN

TESTIMONY OF PLANNED PARENTHOOD ADVOCATES OF WISCONSIN IN SUPPORT OF SB 398
The Women's Health & Safety Act

My name is Chris Taylor and I am the public policy director for Planned Parenthood Advocates of Wisconsin. I greatly appreciate the opportunity to testify before the Senate Health committee today in support of this long overdue change to the Wisconsin statutes. Planned Parenthood Advocates of Wisconsin strongly supports SB 398, the Women's Health & Safety Act and encourages this committee to pass the bill immediately.

Unlike the people and groups who want to criminalize abortion, Planned Parenthood does everything within our power to support access to birth control and education so that people do not find themselves faced with an unintended pregnancy. Each year, we serve over 70,000 patients throughout the state by providing breast and cervical cancer screening and cervical cancer treatments, sexually transmitted infection testing and treatment, pregnancy counseling and access to birth control methods, and abstinence-based, age-appropriate sex education.

Why is Planned Parenthood so committed to prevention based health services? Not only because it makes good public policy sense, but because we know the most effective ways to reduce incidences of unintended pregnancies and abortion is through access to birth control and education. Countries that have the lowest abortion rates in the world, like the Netherlands, have widespread access to birth control and comprehensive sex education that includes information about abstinence and contraception.

Contrary to Planned Parenthood's efforts, those who want to criminalize abortion throw up road block after road block for women wanting access to birth control. Inexplicably, those who oppose abortion often oppose birth control too.

Planned Parenthood is one of only three abortion providers in the state of Wisconsin, providing abortion services in Appleton and Milwaukee. What we know at Planned Parenthood and what we see around the world is that when abortion is illegal, women continue to have abortions, but they are unsafe. The result is that women die.

According to the World Health Organization, unsafe illegal abortion is one of the most easily preventable and treatable causes of maternal mortality. (WHO, Address Unsafe Abortions, 1998). There are an estimated 19 million illegal, unsafe abortions every year. About 5.2 million of these women are hospitalized for serious complications. Another 68,000 die each year, making illegal abortions a significant cause of maternal mortality—13% of all maternal deaths are attributed to illegal abortion.

And you can look at any country in the world where abortion is illegal and maternal mortality rates are through the roof.

- In Peru, about 350,000 illegal abortions occur every year resulting in one of the highest maternal mortality rates in the region (about 240 deaths for every 100,000 live births—the U.S. maternal mortality, for comparison, is currently 7.5 deaths for every 100,000 live births). (Breaking the Silence: the Global Gag Rule's Impact, CRR 2003).

- In Kenya, about 300,000 illegal abortions occur each year with official statistics estimating that they cause 30-50% of all maternal deaths in the country. (Break the Silence, African News, Aug 30, 2006).

That is why the trend of most countries is to repeal criminal abortion laws. In 2002, the Ethiopian Ministry of Health reported that unsafe abortion complications were the 5th leading cause of hospital admission and the 2nd leading cause of death among hospitalized women. 55% of maternal mortalities were caused by unsafe abortions. In response to the high maternal mortality rates, Ethiopia liberalized its criminal abortion law in 2004. Since 1995, 17 countries have moved to liberalize abortion access. These nations include Colombia, Ethiopia, Portugal and South Africa. On the other hand, only three countries have tightened abortion restrictions: El Salvador, Nicaragua and Poland. (Center for Reproductive Rights, 2007). Does Wisconsin want to be grouped with third world countries on this issue?

If you looked in our statute books, you would think so. We are only one of four states that maintain a pre-*Roe v. Wade* (1973) criminal abortion statute on the books. Wisconsin is the only state in this country whose abortion statute contains criminal penalties for both women and physicians. Wis. Stat. §940.04 bans abortions unless two physicians certify that a woman will die if she continues a pregnancy. Under the law, physicians charged could be jailed up to 15 years and fined up to $50,000 and women charged could be jailed up to 3 ½ years and fined up to $10,000.

This law has been in our statutes since 1849, which was indeed a different time. The inhumane cruelty of slavery existed in many parts of the country. The civil war would not be fought for another 15 years. Cars wouldn't be invented for another 50 years and women wouldn't get the right to vote for another 70 years. Since *Roe v. Wade* in 1973, Wisconsin's criminal abortion statute has not been enforced. We should never go back to a time when abortion was criminal.

And Wisconsinites by wide margins do not want to return to the days of back alley abortions. We want to move forward and focus our efforts not on abortion but on prevention. According to a June, 2007 Mark Mellman poll, 75% of Wisconsin voters oppose criminalizing abortion, including 87% of Democrats, 74% of independents and 64% of Republicans. 69% of voters want Wisconsin's criminal abortion statute to be repealed at some point, including 72% of voters in the Madison media market, 70% of voters in the Green Bay media market, 65% in the Lacrosse/Wausau media markets and 72% in the Milwaukee media market (4/07 Mellman poll). In a February, 2008 Celinda Lake poll, an overwhelming 74% of likely voters indicated that a legislator's support of criminal penalties for a woman and physician who participate in an abortion even in cases of rape, incest and to protect the health of a woman raised serious doubts about that legislator.

Planned Parenthood and Wisconsin Right to Life do agree on two things. The first is that *Roe v. Wade* is in grave danger and the second is that this terrible criminal statute would go into effect if *Roe* is reversed by the U.S. Supreme Court. Wisconsin Right to Life has stated "Our Wisconsin ban, s.940.04 of the statutes, would immediately shut down Wisconsin abortion clinics once *Roe v. Wade* is overturned." Indeed, we are closer than we have ever been to a reversal of the federal protections in *Roe* and have already seen the Bush court go far in restricting access to abortion by

upholding the first abortion restriction ever in this country's history that does not include an exception for a woman's health.

But that is where our agreement ends. At Planned Parenthood, as indicated above, we know the dire health consequences for women when abortion is illegal. Besides that, in Wisconsin, women would risk being sent to jail if § 940.04 becomes enforceable. The criminal abortion statute treats women who have abortions as felons with prison time provided. This language is quite clear from the § 940.04 law. However, in 1985, Wis. Stat. § 940.13, was passed exempting women from prosecution for obtaining an abortion or otherwise violating any provision of any abortion statute. So what are we to do with this conflict in the law? Why didn't the legislature simply remove the criminal penalties in § 940.04 instead of passing a conflicting law?

Furthermore, why is this discussion relevant? Because the question of which statute controls will ultimately be left to a court to interpret whether women will be sent to jail or not under 940.04.

The passage of § 940.13 in direct conflict with § 940.04 creates an ambiguity in the law. Under rules of statutory construction, when two conflicting statutes on the same subject create an ambiguity, the court looks to the scope, history, subject matter and object of the statute. (*Return of Property in State v. Jones*, 226 Wis.2d 565 (1999)). In light of this ambiguity, a court would be required to examine the legislative intent behind § 940.13. A review of the legislative history—starting with the first 1985 draft (LRB 4124/1) and continuing through the final act (85 Wis Act 56) clearly demonstrates that the legislature DID NOT intend to repeal the criminal penalties for women. The original LRB draft was a complete repeal of § 940.04 and a re-created a statute that criminalized post-viability abortions, sending only physicians to jail. Eventually an assembly substitute amendment, which removed the repeal language and instead created two new stand alone statutes, was adopted. The intent to keep § 940.04 completely intact is demonstrated by this history. Further evidence of this intent is demonstrated by specific amendments in the Senate that would have completely repealed § 940.04, leaving no conflict in the law. The legislature was clearly aware of the conflict, as it had been directed by the Legislative Reference Bureau to use the more specific language exempting women from the very specific statutory sections §§ 940.03(3) and (4). All of those attempts were rejected by the legislature.

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This is an example of the analysis a court would be required to entertain. However, anyone who has ever litigated any issue in front of a court knows you can not predict what a court will do in any given case. Certainly, judges bring their own opinions and biases to cases. And certainly, it is absurd for WRTL to claim that they know what every judge in Wisconsin would do if faced with what criminal penalties a woman should receive who has an illegal abortion. Wisconsin Right to Life obviously thinks that judges do have certain philosophies and opinions they bring to the bench, or they would not have endorsed one of the judicial candidates in the current state Supreme Court race.

The bottom line is that there is not a clean cut answer since no Wisconsin court has ever interpreted the ambiguity created by this statutory conflict. The only way to ensure that women are never prosecuted in Wisconsin is to repeal that language from our statues. And unless you want to eventually throw women in jail for obtaining an abortion, there really is no good reason to maintain the language in our laws.

But this is not just a bad law because it threatens to throw women in jail. The law also would imprison physicians who perform abortions in Wisconsin—even if the woman seeking an abortion

is a victim of rape or needs an abortion to preserve her health. When the government criminalizes abortion, good doctors are no longer available to care for women facing unintended pregnancies. These women, faced with the desperate situation of facing unintended pregnancies are forced to turn to dangerous, back-alley abortions.

It is also bad law because women who are raped or who have a health issue develop in a pregnancy will be left with no options if abortion is illegal. Here is the story of Christine Merkel, one Wisconsin woman, who had a pregnancy go wrong and needed an abortion because her health was in danger. When she was 18 weeks pregnant, her water broke. These are her words:

> Unfortunately, when one's water breaks this early in a pregnancy both the mother and baby are doomed unless action is taken. Infection that can be fatal to both sets in quickly, often within 24 hours. My husband and I were informed that we had the option of placing me in a secure isolation chamber to ward off infection so as to continue the pregnancy, but were also informed that even in the extremely rare case my body could continue to support the pregnancy, our son had virtually no chance.
>
> Since amniotic fluid is critical for lung development, babies born to women who have prematurely ruptured their membranes (PROM) usually have severe breathing problems and short lives. Live births PROM cases have only been documented in pregnancies lasting far longer than 18 weeks. In my case, the attending doctor relayed that a live birth was really only "theoretically" possible and that given the risk of infection to me, he would not advise attempting to continue the pregnancy.
>
> Despite our grief at the impending loss of a 3rd pregnancy, especially so late, we came to the conclusion that moving to the isolation chamber was not the best option and that we would let nature take its course. We did not fully understand at the time that letting nature take its course would result in both my and my son's death. Instead we had to decide whether or not to actively induce labor or schedule a dilation and extraction procedure. We were advised to do one or the other quickly so as to avoid the infection that would most certainly come.
>
> The risks of inducing labor in the 2nd trimester, also considered an abortive procedure, are many. Often it takes an extremely long time for the delivery as the body resists to deliver a baby that it fundamentally knows is not ready to be born. In addition, there is often difficulty in delivering the placenta which poses a much greater risk of hemorrhage. The added time in the hospital is also a consideration as it means more time away from home, work and family obligations.
>
> Although it was only one day/night, it seemed like after an eternity of consideration, my husband and I decided that we would induce labor. We weighed absolutely everything in this decision including the impact on my daughter, the potential trauma for our son (who at that point was still kicking strongly), my health and safety, as well as the emotional trauma of a drawn out ordeal. Eventually, even though we knew our chosen option was 1) less "safe" in regard to my own health, 2) more painful for me, 3) required a longer hospital stay and 4) my son would be stillborn, I wanted a chance to hold my son and say goodbye in person.
>
> As I'm sure you can imagine this was a very traumatic event in my life. I made decisions during that last week of March 2002 with my husband and in consideration of our family. We felt that despite our strong connection to our unborn son, we needed to make decisions for the future and in the interest our strong and healthy 18 month old daughter who needed her mother.

Know that women who make decisions to terminate a pregnancy, especially into the 2nd trimester do not come to their decision lightly. As practicing Catholics we actually considered whether or not we should let "nature take its course" and then decided that my life and the need of our daughter to have her mother were more important than betting on a miracle.

You need to understand. We have our son's framed footprints in our living room and I have saved his hospital blanket along with other mementos from that pregnancy. He has a memorial tree in a national forest, and donations are made annually in his name. Benjamin was my son and yet I chose to take a course of action that would prematurely (granted only by a couple of hours) end his life because it was the best option for my family. Please don't insult me and other women like me (or unlike me for that matter) by assuming that we don't already consider absolutely everything, including things you could never even imagine to legislate about, in making such an impossible decision.

Please do not tell us and our families that our health doesn't matter. We need to be told everything, to be given ever option available. And then we, with our families and physicians, need to make the decision. Please don't take that away from us.

This story really perfectly illustrates why this criminal abortion statute must come off the books now. We should never tell women that they need to risk their own health rather than have a safe, legal abortion.

Please, for the sake of the health and lives of Wisconsin women, repeal this statute now. Support the Women's Health and Safety Act.

WISCONSIN CATHOLIC CONFERENCE

TESTIMONY REGARDING SENATE BILL 398: ABORTION BAN REPEAL
Presented to the Senate Health and Human Services Committee
February 27, 2008

My name is Barbara Sella and I am the Associate Director for Respect Life and Social Concerns at the Wisconsin Catholic Conference. On behalf of Wisconsin's Roman Catholic bishops, I strongly urge you to oppose Senate Bill 398, which would repeal our state's abortion ban.

Laws do more than prohibit certain behaviors. The law is also a teacher, helping a community attain its highest aspirations. Wisconsin's abortion ban reflects our state's progressive and humanitarian tradition that all human beings – whether born or unborn – deserve to be treated with equal respect.

Over the past century, Wisconsin led the nation in protecting the vulnerable from exploitation. Reforms such as child labor laws, the minimum wage, the creation of child welfare programs, civil rights laws, and family leave laws have all increased the protection of groups that otherwise risked being harmed by the more powerful.

On the day that *Roe v. Wade* is overturned, Wisconsin will once again be at the forefront of states that protect the most vulnerable of all – the unborn.

Let me be equally clear as to what will not happen when *Roe* is overturned. Women who have abortions will not be put in jail. For the enforcement of s. 940.04 will not repeal s. 940.13, which protects women who abort from prosecution.

The WCC fully supports s. 940.13. The aborted child is not the only victim of an abortion. Women are also victims and they deserve compassion, not incarceration.

According to the most recent statistics on induced abortions ("Facts on Induced Abortion in the United States," Guttmacher Institute, January 2008) in 2005, half of all induced abortions were obtained by women under the age of 25. A woman living below the federal poverty level was four times more likely to obtain an abortion than a woman living at 300% of the poverty level. Two-thirds of all abortions were obtained by unmarried women. African-American women and Latino women were 4.8 and 2.7 times more likely to get an abortion than White women. Three-quarters of women who aborted said they could not afford to care for a child.

In short, abortion is most prevalent among young, poor, unmarried women, with the highest rates among women of color. These are individuals who feel compelled to obtain an abortion because they do not have sufficient economic or emotional support.

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Catholic teaching holds that the solution to poverty and illegitimacy is not abortion, but love and responsibility, justice and solidarity. Women and their unborn children deserve the right not only to a safe birth, but also to a safe and dignified life – to sufficient nutrition, housing, education, health care, and employment. These issues should be the focus of our public policy efforts, not the defense of abortion.

In 1973, some believed that legalized abortion was the way to a more just society. Today we know better. In the 35 years since *Roe v. Wade*, out-of-wedlock births have steadily increased. Child neglect persists. Ninety per cent of all fetuses diagnosed with Down Syndrome are aborted. Women and men suffer psychological and physical harm from their past abortions. Millions of unborn children have lost their lives.

To accept abortion on demand is to accept these injustices. It is to accept that we are <u>not</u> created equal, and that some human lives have greater moral worth than others. It is to accept that human lives conceived out-of-wedlock, or with fetal abnormalities, are less entitled to our respect. It is to accept that a human life is only precious if it is wanted by somebody else.

This logic is not simply unjust – it defies reason. The basic premise of a democratic society is the equal rights of all its members. Our nation's Founders affirmed that our Creator endows every human life with intrinsic and inalienable dignity. Lincoln reaffirmed this at Gettysburg. We can reaffirm it today by leaving s. 940.04 in our state statutes.

Thank you.

My name is Hallie Wiertzema. I am a wife, a mother, and a nurse from Richland County and I am testifying in opposition to Senate Bill 398. I am in favor of preserving Statute 940.04 in Wisconsin's Law and I'll tell you why.

The ways that the issue of abortion has affected me are multifaceted, much like that of a diamond. I grew up in a loving home always aware that I was adopted. Mom and Dad told me often I was special-because they picked me. I experienced a very normal childhood, filled with more positive experiences than any child could imagine.

In April 1999, my parents drove with me to meet my biological parents. It was a wonderful reunion and there has been continued relationship. Families on both sides have embraced me and included me in many ways, like, weddings, holiday gatherings, birthday parties and family reunions.

In May 1999, the State Department released my impounded Birth Certificate. It was the reading of that document that has changed my life's focus and desires. The story spoke of a teenage girl who had gone to her family doctor to get an abortion. Her father had sent her away and told her not to come home until she had an abortion.

The doctor was kind and wanted to help so he looked at getting a plane ticket to New York to have an abortion there. But, a quick ultrasound check showed the baby was too far developed to abort so that doctor took $1600 out of his own personal money to give her food and a place to live. He delivered that baby and had the baby placed for adoption. And that baby was me.

It's very humbling to read an account of your life, especially of your beginning and realize that you almost weren't here. I have

met the nurse who delivered me and also have been in contact with the Doctor who ultimately saved my life.
This leads me to facet two on my diamond.

My parents encouraged me to WAIT to experience sex within marriage. I held this deep conviction, as well, especially as I watched two of my high school friends experience childbirth in their freshman year. Some of my friends talked about STD's they had gotten, while others suffered the aftereffects of choosing to abort their babies. I was well on my way to achieving my goals and avoiding these issues.

Two weeks away from my High School graduation I attended a post-prom party. You see, my date and I were elected the King and Queen the year before. So, we attended the prom the next year to crown the new King and Queen. Back at the post-prom party, there was a lot of fun, food, friends, and other poor choices that enabled my virginity to be taken from me in a date-rape situation.

I've often heard that abortion is the "the compassionate choice" in cases of rape or incest. I disagree with that, let me tell you why.

When I was nineteen and attending UW-Madison I faced an unintended pregnancy. My boyfriend said he would support whatever decision I made. Pursuing a career at the time, I thought it would best for everybody involved if I just had an abortion. Ultimately, that's what we chose and I can honestly say that it was the worst decision I've ever made.

I'm 36 today and I would have a 17 year old child if I had not made a decision based out of fear and selfishness. Many times people say, "yes, but if you were raped then abortion would be O.K." Or, "it would be just too difficult to have the child around as a reminder of that rape. Abortion would be acceptable then." I believe the pain of being raped is much less than the pain of

abortion because you don't have a choice in the matter. Whereas, the emotional impact of having an abortion is greater because you, yourself, make a choice to kill your baby. In my experience, the physical pain of an abortion is much greater than that of rape. Abortion is NOT a painless procedure.

This leads me to facet three on my diamond. Prior to my abortion, I was a pretty motivated person on my way toward a career in nursing and hospital management. I enjoyed long distance running and my friendships. I basically enjoyed my life!!

After my abortion, I lost sight of my goals. Symptoms of anxiety, depression, thoughts of ending my life, continuous guilt, sleeplessness, lack of motivation, and profound sadness, clouded in. Opponents may disagree that Post Abortion Syndrome in Women exists. But I ask, how is it that a person could be so contented, motivated, and happy with the first 19 years of their life, and with a 20 minute abortion procedure have feelings so completely opposite for the next 10 years…

I believe the emotional impact of having an abortion is far-reaching. Facet four on my diamond is the study I went through 6 years ago to deal with the issues and overcome Post-abortion syndrome. The study was called Forgiven and Set Free and it did just that!! I have led other women through the study and their tears and remorse are replaced with a joy for living again. My past boyfriend said there hasn't been a day that goes by where he doesn't think about that baby and what life could've been like. Men, also, are affected by abortion.

This leads me to conclude with facet five on my diamond. I am grateful to the Doctor who courageously stood up and gave me the Right to Life, Freedom and the Pursuit of Happiness. Where is our nation headed as 48 million people have been denied these basic rights according to our Constitution. How long will we have

to wait for our leaders to step up and say abortion practices need to stop??

What is the value of a life?? Ask my husband of nearly 3 years; ask my family and friends, ask my patient after I've adjusted his ventilator settings, ask the young people I get to talk with about Saving themselves for marriage, ask the 1 in 4 women you pass by in public who've just had an abortion.

I'm so glad that Doctor stepped up and gave me the opportunity to live and experience the love of my husband and children; the kisses of my 2 year old and his voice echoing mama.

Members of this committee, I hope that you remember my stories because, like me, it may well be YOUR daughter, sister-in-law, aunt, wife, or grandma whom abortion touches. I appreciate your vote against Senate Bill 398 and to SAVE s. 940.04 Thank-you!!